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FEDERAL RESERVE'S SECOND MONETARY POLICY REPORT FOR 1988

HEARINGS

BEFORE THE

COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

SECOND SESSION

ON

OVERSIGHT ON THE MONETARY POLICY REPORT TO CONGRESS PURSUANT TO THE FULL EMPLOYMENT AND BALANCED GROWTH ACT OF 1978

JULY 12 AND 13, 1988

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FEDERAL RESERVE'S SECOND MONETARY POLICY REPORT FOR 1988

TUESDAY, JULY 12, 1988

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING,
AND URBAN AFFAIRS,
Washington, DC.

The committee met at 10:15 a.m., in room SD-538, Dirksen Senate Office Building, Senator William Proxmire (chairman of the committee) presiding.

Present: Senators Proxmire, Riegle, Sasser, Graham, Garn, Hecht, and Bond.

OPENING STATEMENT OF CHAIRMAN PROXMIRE

The CHAIRMAN. This morning we meet to discuss the outlook for the U.S. economy and the appropriate course for monetary policy in the coming months. We have before the committee, a panel of experts on monetary and macroeconomic policy: Dr. Alan Blinder, chairman of the Department of Economics at Princeton University; Dr. Rudiger Dornbusch, professor of economics at Massachusetts Institute of Technology; Dr. Ray Fair, professor of economics at Yale University; and David Hale, first vice president and chief economist at Kemper Financial Services. Gentlemen, thank you for appearing before us today. We certainly do need expert guidance in these difficult times.

The U.S. economy is undergoing a profound transformation from an economy based on consumption-led growth to an export-led growth economy. On the one hand capacity utilization is high and labor markets are increasingly tight. Both of these indicators suggest that inflation is beginning to reemerge. Fears of more vigorous inflation and a precipitious decline in the dollar make easing of monetary policy quite risky.

On the other side, huge accumulations of debt make our financial system quite fragile. Business debt, Government debt, and consumer debt, have all soared in recent years. The debt accumulation, the crisis in the Savings and Loan industry, problems of debt service in Latin America, and the agricultural crisis combine to raise the costs associated with a further significant rise in interest rates.

In addition, our Federal debt is now so large that a percentage point increase in the interest rate can add as much as $20 billion to the deficit over 2 years through a rise in debt service alone.

All appears calm at the moment. I fear that calm is precisely that—momentary. The dollar is rising despite our continued massive trade deficit. The Federal Reserve has gradually raised rates since March and the last couple of trade statistical announcements have been good news. But what will happen when the next disappointing trade number is announced? What will happen as institutional investors begin to reallocate their assets later this summer, each trying to beat the market to the draw before the new administration changes the course of macroeconomic policy?

Our Nation's central bank is between a rock and a hard place. The appropriate remedy to our macroeconomic imbalance is Federal budget deficit reduction. Hopefully, the Congress and the President will find the will to address that problem very early in the next administration. Its resolution is long overdue.

What I fear is that the overhang of problems in our economy and the Presidential election, when all 6 members of the Federal Reserve Board are Republican Reagan appointees, will lead the Fed to be insufficiently strong in fighting inflation. This lack of will to face inflation at the outset will not remedy our structural problems, it will only postpone them.

Avoiding the battle against inflation will lead to a rise in prices that will be very costly and painful to wring out of the system just as it was in the early 1980's.

The difference is that next time we go through wrenching disinflation we will do it on the back of all the financial problems that exist today. If the Federal Reserve does not show the resolve to keep inflation down they will make things more comfortable temporarily, and in the long run we will all pay the price. An ounce of prevention is, in this case, worth more than a pound of cure.

[The complete biography of the panelist follows:]

BIOGRAPHY OF PANELISTS

Dr. Alan Blinder is the chairman of the Economics Department at Princeton University. He received his B.A. at Princeton, went to London School of Economics on a Marshall scholarship and then returned to complete a Ph.D. at M.I.T. He is an expert in all areas of macroeconomics, public finance, and the economics of income distribution. His most recent book is entitled, "Hard Heads and Soft Hearts".

Dr. Rudiger Dornbusch, professor of economics at M.I.T. in Boston. He received his Ph.D. at University of Chicago. He has pioneered much of the current thinking on international finance and open economy macroeconomics when capital is mobile across borders. He has written the textbook entitled, "Open Economy Macroeconomics" that is a staple in every graduate student's diet. Dr. Dornbusch is a consultant to international organizations and governments around the globe. He is almost as internationally mobile as the financial capital that he studies.

Dr. Ray Fair, professor of economics at Yale University. He received his Ph.D. from M.I.T. and his undergraduate training at Fresno State. He is well known as the only macroeconomic forecaster who doesn't judgmentally fudge the results of his model. Dr. Fair has been a pioneer in the development of economic modeling methods and is also an expert on the role of macroeconomic policy in influencing the outcome of political elections.

David Hale is first vice president at chief economist at Kemper Financial Services in Chicago. He has written prolifically in recent years and his work regularly appears in the magazine, The International Economy, The Wall Street Journal, and the Financial Times. Mr. Hale was educated at Georgetown University School of Foreign Service and holds a masters degree in economics from the London School of Economics.

The CHAIRMAN. Senator Riegle.

OPENING REMARKS OF SENATOR RIEGLE

Senator RIEGLE. Gentlemen, we're delighted to have all of you today and we'll start, Dr. Blinder, with you.

STATEMENT OF ALAN S. BLINDER, PROFESSOR OF ECONOMICS, PRINCETON UNIVERSITY

Mr. BLINDER. Thank you, Mr. Chairman. I was tempted to start by saying that these are difficult times for conducting monetary policy, but then I concluded that I must have said that every time I have testified on monetary policy. And probably most other witnesses have also.

I want to try to address some of the questions that were posed in Senator Proxmire's letter to us by making just three main points.

The first is something I'm really not accustomed to saying, which is that the Federal Reserve has on the whole done a quite splendid job over the last several years.

The second is that the Fed will have to continue doing such a splendid job for several more years because the transition to a policy mix of easier money and smaller fiscal deficits has some way to go yet.

And a third is that I think the Government should create a monetary indicator that's better than any of those mentioned in Senator Proxmire's letter by issuing indexed bonds. I will take them up in turn, beginning with the recent performance of the Fed.

FED HAS DONE AN EXCELLENT JOB

With a few exceptions that I won't mention, the Fed has really been doing an excellent job of sustaining a moderately paced, steady economic expansion ever since the post recession rebound ended around the middle of 1984. The civilian unemployment rate, as you know, has been falling smartly since the beginning of last year; and it's now down to the lowest level we've seen since 1974. Furthermore, my guess is that it's also pretty close to where we'd like it to be, that is, to the so-called natural rate of unemployment.

While getting the unemployment rate down, the Fed has also managed to hold inflation in check and has done that despite the falling dollar. If you look at the recent numbers on inflation, some of which I put in table 1 which follows page 2 of any printed statement, they really show no hint at all of any acceleration of inflation.

A performance like that deserves kudos and we all hope it will continue.

In order for it to continue, at least two potential sources of error must be avoided over the coming months and indeed over the coming years. The first is that the Fed must not be swayed by the inflation hysteria that seems to sweep Wall Street about every week or two. Speculative markets like the stock exchange and the bond markets and the foreign exchange markets react to everything, including things that are just imagined by traders; and they almost always overreact to these things.

The Fed has to ignore this insanity and, I'm happy to say, seems lately to be doing so.

Second, the Fed must not again get snookered into an agreement to support the dollar at an excessively high level, as it did in 1987. That's obviously not a burning issue right now, with free market forces pushing the dollar up—or let's just say with market forces pushing the dollar up, but I can't imagine that this situation will last very long. The longer term prognosis for the dollar must surely be downward, not upward, a point to which I will return very shortly.

FISCAL-MONETARY TRANSITION

The second thing I want to say something about is the fiscal-monetary transition, which has to do with the work that's cut out for the Fed in the years coming. We're now in the midst of what seems to be an historic transition from the Reagan-Volcker policy mix of excruciatingly tight money and irresponsibly large budget deficits toward a saner policy of easier money and smaller deficits.

This transition has been going on for several years now—with greater progress, I must say, on the monetary front than on the fiscal front. And I think it will almost surely continue through the term of the next President and perhaps beyond that.

So far, I think many people would agree that we've managed this transition extremely well, if slowly. I would certainly agree with that. Table 2 which follows page 3 in the printed testimony shows one indicator of the progress we've made to date and the distance that we still have to travel. It does this by comparing the composition of real GNP—all the numbers in this table are percentage shares of GNP—in 1986, when the imbalance was at its worst on an annual basis, and the most recent quarter for which we have data, 1988 first quarter, with 1979, which I take to be a reasonable target of what a sensible composition of GNP for the United States might look like.

You can see from these numbers that the combined share of consumer and government spending in GNP rose by 4.4 percentage points between 1979 and 1986, while the investment share changed very little. The big offsetting change, offsetting that 4.4 percent rise, came in net exports—which swung from a rough balance to a deficit of about 4 percent of GNP.

Now since 1986, we've moved the combined consumption and Government share back down by about 2 percentage points, or roughly halfway back to where we were in 1979; and we've reduced the net export deficit by about a quarter. That last number is certainly tenuous since it's based only a single quarter, the first quarter of 1988.

And, I think by no coincidence, you can see in the memo item on the right-hand side that the Federal deficit as a share of GNP has come down by about a third from what it was in 1986.

So we've so far completed something between a half and a quarter of the transition we need to accomplish to get back to a reasonably balanced GNP. The rest of that job is going to be left to the next President with the help—with considerable help—of Chairman Greenspan and the Fed.

It's obviously critical that we keep this process going. More than likely, a continued shift toward more exports and less consumption

in GNP is going to require a continued tightening of fiscal policy and a compensating easing of monetary policy.

Americans ought to realize that the fiscal-monetary transition that I'm talking about will most likely bring with it not only lower interest rates, which most Americans would welcome, but also a cheaper dollar, which many Americans seem not to like. I don't see how this can be avoided, especially since the foreign indebtedness that we've been accumulating and continue to accumulate ultimately will require us to generate a trade surplus in order to pay the interest that we will eventually owe.

To shift the pattern of world demand toward U.S. goods and services, we have to offer foreigners better prices and that's exactly what a cheaper dollar does for us.

If the Treasury or the Fed or for that matter any other foreign central bank blocks that adjustment process, it will be very hard for the fiscal-monetary transition to do its necessary work in restoring the shares of GNP to what they should be.

Now let me conclude by taking up the issue of monetary indicators that was asked about in the letter.

MONETARY INDICATORS

By now I think most people would agree that, when it comes to using M1 as a monetary indicator or target of monetary policy, the Fed, to coin a phrase, should just say no. And I think that's exactly what the Fed has been doing over the last several years, which is part of the reason I applaud their performance.

I prepared two figures in the printed testimony, figures 2 and 3 which follow page 5, to illustrate this point, that is, to show that it's so and show why this is reason to applaud the Fed's recent performance.

On figure 2, the growth rate of M1 is plotted horizontally and the growth rate of nominal GNP is plotted vertically. The graph covers the last 15 quarters, which is the period since the rebound from the recession. The vertical and horizontal bars on the graph show the average values of each variable.

Now if you look at this graph, two things are clear. One is that monetary growth has been vastly more volatile than GNP growth. The second is that there's absolutely no tendency in the recent data for nominal GNP to grow rapidly when M1 grows rapidly or to grow slowly when M1 grows slowly.

The next figure, figure 3, plots velocity growth against M1 growth; and here you do see a very tight and inverse relationship with an almost perfect correlation. The meaning of that tight relationship is that the Fed has managed to offset erratic movements in velocity with timely changes in money growth, thereby stabilizing the growth rate of nominal GNP. That explains both why M1 growth has been so volatile—because it's had to be high when velocity is falling and low when velocity is rising—and also why M1 growth bears no relationship whatever to nominal GNP growth over this period.

If I had constructed corresponding diagrams using M2 or the monetary base, they would look similar to this, though a bit less dramatic.

In your letter, Mr. Chairman, you inquired about some less conventional indicators like commodity prices, the exchange rate, and the term structure of interest rates. I think each of those conveys some useful information, but each is also influenced by a host of extraneous factors not having to do with monetary policy.

Commodity prices are sensitive to many market-specific developments. The value of the dollar is influenced by all sorts of things that happen both here and abroad and is also subject to speculative bubbles. The term structure of interest rates is influenced by the term structure of inflationary expectations.

As between those three, I personally would place the greatest weight by far on the term structure of interest rates. In theory, monetary policy should move short rates more than it moves long rates, and in practice that seems to be the case. Furthermore, the slope of the term structure is probably influenced by relatively few nonmonetary factors.

Finally, and very importantly, econometric evidence shows that the spread between long rates and short rates has considerable predictive power for future inflation and unemployment.

Mr. BLINDER. The last point I wanted to make is that we could improve on the term structure of interest rates as a monetary indicator if the Congress would do one thing, which is to see to it that some of the Federal debt was issued on an indexed basis. If the Government would issue both bills and bonds on an indexed basis, we could observe the term structure of real interest rates in the financial markets, as the British now do. That is to say, we could observe the term structure purged of the influence of inflationary expectations. If that would be done, I think we would have a better indicator yet.

[The complete prepared statement of Mr. Blinder follows:]

Testimony of Alan S. Blinder

Professor of Economics

Princeton University

to the

Committee on Banking, Housing, and Urban Affairs

United States Senate

July 12, 1988

Mr. Chairman, thank you very much for the opportunity to testify here today. I was tempted to begin by saying that these are difficult times for conducting monetary policy; but then I realized that I must have said that every time I have testified on monetary policy. So, I imagine, have your other witnesses. I suppose times are always difficult.

I will try to address a few of the questions you raised in your letter by making just three main points. The first is something I am not accustomed to saying: that the Federal Reserve has, on the whole, done a quite splendid job for the past few years. The second is that the transition to a policy mix of looser money and tighter federal budgets has some way to go yet; so the Fed will need to continue its stellar performance for several more years. The third is that the government should create a monetary indicator that is better than any of the ones you mentioned in your letter by issuing indexed bonds. Let me take up these three issues one at a time.

1. THE RECENT PERFORMANCE OF THE FED

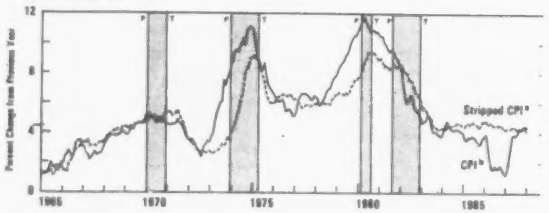
With a few exceptions, the Fed has been doing an excellent job of sustaining a moderately-paced economic expansion since the post-recession rebound ended in mid 1984.

The civilian unemployment rate, as you know, has been falling smartly since January 1987 and is now down to its lowest level since 1974. My guess is that it is also pretty close to where we want it to be, though I hold out the hope that we might trim off a few tenths of a point more. But, whether the natural rate of unemployment is 5.2% or 5.8%, it is clear that we do not want any major movement of the unemployment rate right now.

While getting the unemployment rate down, the Fed has also managed to hold inflation in check. Figure 1, which comes from the CBOs February report, shows what they call the stripped CPI -- all items except food, energy, and used cars. By this measure, inflation has been stable at around 4.5% since 1983. More germane to this hearing, inflation shows no recent tendency toward acceleration despite falling unemployment and the falling dollar. Table 1 below shows the last five quarterly inflation rates, measured in two different ways. They, too, show no hint of acceleration.

This performance deserves applause. May it continue. In particular, two potential sources of error must be avoided. First, the Fed must not be swayed by the inflation hysteria that seems to sweep Wall Street about every two weeks. Speculative markets react to everything, including things that are just imagined, and they react too vigorously. The Fed must ignore this insanity. Second, the Fed must not again get snookered into an agreement to support the dollar at too high a level. This is obviously not a burning issue right now, with market forces pushing the dollar up; but I cannot imagine that

Figure I-14.
Measures of Inflation



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics

[a] CPI-U excluding food, energy, and used cars.
[b] CPI-U from January 1983 to present; before that time the series incorporates a measure of home-ownership conceptually similar to that of the current CPI-U.

this situation will last long. The longer-term prognosis for the dollar is probably downward -- a point to which I will return shortly.

2. THE FISCAL/MONETARY TRANSITION

We are now in the midst of an historic transition from the Reagan/Volcker mix of excruciatingly tight money and irresponsibly large budget deficits to a saner policy with easier money and smaller deficits. This transition has been going on for several years now, with greater progress on the monetary than on the fiscal front. And it will continue through the term of the next president, and perhaps beyond. So far, we have managed this transition extremely well. And, as I just suggested, most of the credit must go to the Fed; fiscal policy has been erratic.

Table 2 shows one indicator of our progress to date and the distance we still have to go. It compares the composition of real GNP in 1986 and the most recent quarter with that of 1979, which indicates what a reasonable target for the composition of GNP might be. I take 1986 to represent the peak of the imbalance and 1988:1 to show where we are now. (One quarter does not establish a trend, but the swing in net exports is quite recent. Figures for 1987:4 would look similar, except for net exports.) We can see that the combined share of consumer and government spending in GNP rose 4.4 percentage points between 1979 and 1986, while the investment share changed little. The big offsetting change came in net exports, which swung from approximate balance to a deficit of about 4% of GNP. Since 1986, we have moved the consumption and government share back down by 2 percentage points, or almost halfway back to where we were in 1979, and reduced the net export deficit by about a quarter. By no coincidence, the combined deficit of all levels of government has also come down by about a quarter.

Thus we have so far completed something between a half and a quarter of the transition we need to accomplish. The rest of the job will be left to President Dukakis or President Bush -- with the help of Chairman Greenspan. It is critical that we keep this process going. Most likely, a continued shift toward more exports and less consumption (as shares of GNP) will require a continued tightening of fiscal policy and a continued loosening of monetary policy. Both the Fed and the new administration must realize that they are locked in a partnership. With unemployment now roughly where we want it, we cannot welcome fiscal tightening without easier money; nor can we afford greater monetary ease without fiscal tightening.

Americans should realize that the fiscal/monetary transition will most likely bring with it not only lower real interest rates, which most of us like, but also a cheaper dollar, which many Americans do not like. I do not see how this can be avoided, especially since our foreign indebtedness ultimately will require us to generate a trade surplus to pay the interest we will owe. To shift the pattern of world demand toward U.S. goods and services, we must offer foreigners better prices -- which is just what a cheaper dollar accomplishes. If the Treasury or the Fed -- or, for that matter, some foreign central bank -- blocks that adjustment process, it will be hard for the fiscal/monetary transition to do its work.

Nor should the combination of a cheaper dollar and lower interest rates be viewed as a bad outcome. In addition to helping to rectify the trade imbalance, it should provide a hospitable climate for investment, ease the debt burdens of farmers and less developed countries, and blunt the S&L crisis. Easier money and tighter fiscal policy is not something to fear, but to welcome.

3. INDICATORS OF MONETARY POLICY

Let me start with the conventional monetary aggregates. By now I think most people agree that, when it comes to using M1 as a monetary indicator or target, the Fed should "just say no" -- which is what it has been doing. Figures 2 and 3 show dramatically why this is so and, by the way, also show why I applaud the Fed's recent performance.

Figure 2 plots the growth rate of nominal GNP against the growth rate of M1 over the last 15 quarters. The vertical and horizontal lines indicate the average values of each variable. Two things are clear. First, monetary growth has been vastly more volatile than GNP growth. (The ratio of the standard deviations is 3.4:1.) Second, there is absolutely no tendency in the recent data for GNP to grow rapidly when M1 grows rapidly or to grow slowly when GNP grows slowly. (The simple correlation between the two series is actually -0.35.)

Figure 3 plots velocity growth against M1 growth over the same period. Here a tight inverse relationship is apparent. (The simple correlation is -0.97.) This tight relationship shows that the Fed has succeeded in offsetting erratic movements in velocity with timely changes in money growth, thereby stabilizing the growth rate of nominal GNP. And that explains both why M1 growth has been so volatile and why it bears no relationship to GNP growth.

The fact that high M1 growth rates have recently signified sharply negative velocity growth, not rapid GNP growth, would seem to disqualify M1 as a monetary indicator. Corresponding diagrams using M2 or the monetary base (adjusted for changes in reserve requirements) look similar, though not quite so dramatic. Thus, these old standbys do not seem to be working very well either lately.

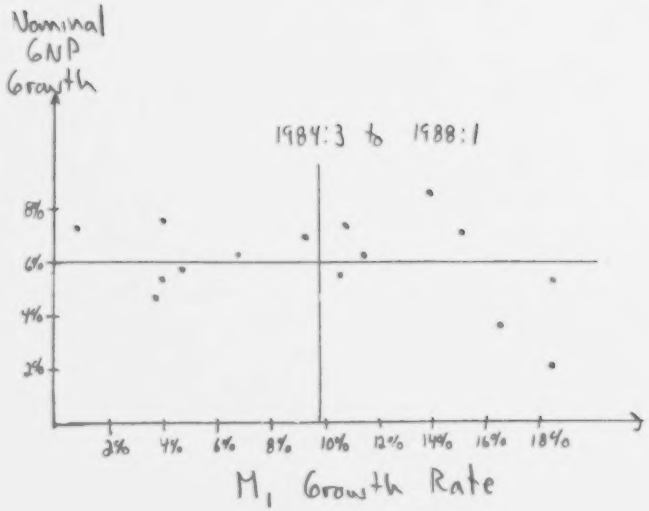


Figure 2

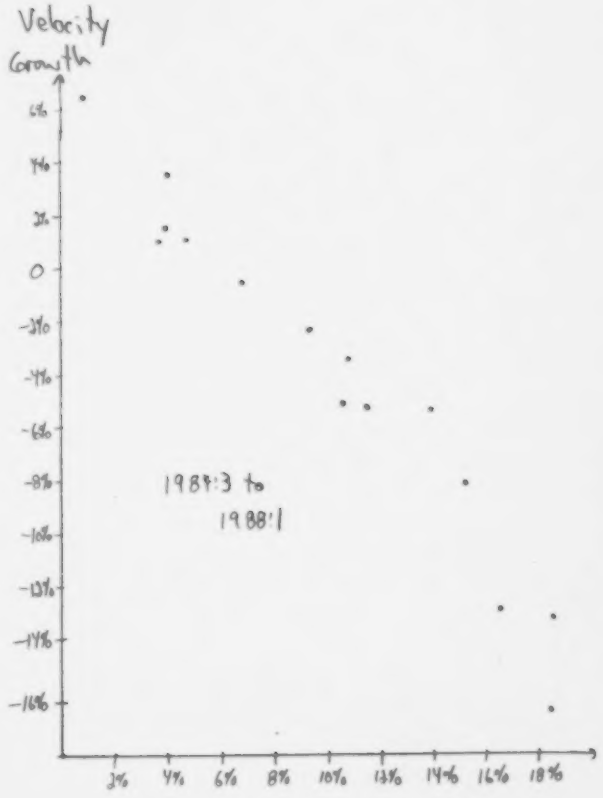


Figure 3

Your letter enquired about less conventional indicators such as commodity prices, the exchange rate, and the term structure of interest rates. I think each of these conveys some useful information about what monetary policy has been or should be doing. But each is also influenced by a host of other factors. Commodity prices are sensitive to numerous market-specific developments; the value of the dollar is influenced by all sorts of things that happen both here and abroad -- and is also subject to speculative bubbles; the term structure of interest rates is influenced by the term structure of inflationary expectations.

Among the three, I personally would place greatest weight on the term structure. In theory, monetary policy should move short rates more than long rates and, in practice, that seems to be true. Furthermore, the slope of the term structure is probably influenced by relatively few nonmonetary events. Finally and importantly, econometric evidence shows that the spread between long rates and short rates has considerable predictive power for future inflation and unemployment.

But let me hasten to say that looking at any or all of these indicators is a far cry from targeting on it. Should the Fed interpret every acceleration of commodity prices as a harbinger of inflation? Certainly not, for to paraphrase an old saw, commodity prices have predicted 12 of the last five inflations. Should the Fed tighten up every time the dollar drops? I have already answered this in the negative; we want the dollar to drop. Should the Fed tighten every time it sees the term structure get steeper? No, the term structure probably got steeper because the Fed eased up -- hopefully, for good reasons.

Let me close by mentioning one thing Congress could do to provide all of us with a better monetary indicator. The main problem with interest rate indicators, including the term structure, is that interest rates may rise for two quite different reasons. If they rise because of higher expected inflation, the Fed may want to tighten up. But if they rise because of greater demand for money or credit, the Fed may want to ease. In a word, when the nominal rate of interest rises, we cannot tell if it is the real rate of interest or the expected rate of inflation that has risen.

But this lack of knowledge is self-imposed, not inherent. We need not remain in the dark. If the federal government would just issue indexed bonds, we could observe the real rate of interest directly in the financial markets, as the British have been able to do since 1981. Better yet, if the government issued both indexed bills and indexed bonds, we could observe the term structure of real interest rates in the markets.

There are other good reasons to issue indexed bonds that have nothing to do with monetary policy. But since this is a hearing on monetary policy, I will refrain from mentioning them and simply attach an old Business Week column of mine for the record. Let me just add that there is nothing difficult or mysterious about issuing indexed debt. The state of Maryland is now deciding whether it will do so. I hope it will. What can be done in Annapolis ought to be doable in Washington.

TABLE 1

Recent Inflation Rates

(quarterly data at seasonally adjusted annual rates)

	1987:1	1987:2	1987:3	1987:4	1988:1
Consumer Price Index	5.4	5.1	3.6	3.9	3.2
Fixed-weight GNP deflator	4.5	4.1	3.4	3.6	3.6

Table 2

Shares of Real GNP (in percent)

Year	Consumption	Investment	Government	Net Exports	Fed. Def.
1986	66.0	17.6	20.3	-3.9	-4.8
1988:1	64.6	18.8	19.7	-3.0	-3.3
1979	62.8	18.0	19.1	0.1	0.4
Changes:					
'79-'86:	+3.2	-0.4	+1.2	-4.0	-5.2
'86-'88:	-1.4	+1.2	-0.6	+0.9	+1.5

Economic Watch

A WAY TO FREE SMALL SAVERS FROM THE 'CASINO SOCIETY'

BY ALAN S. BLINDER

Some foreign governments issue inflation-adjusted 'indexed' bonds, which provide a way of separating the act of saving from the act of gambling. Why can't the U.S.?

ALAN S. BLINDER IS THE GORDON S. RENTSCHLER MEMORIAL PROFESSOR OF ECONOMICS AT PRINCETON UNIVERSITY

Two economists writing in the *New England Economic Review* recently endorsed an idea I have been promoting to anyone who would listen for almost 15 years: that the U.S. government should issue indexed bonds. Thanks, Alicia Munnell and Joseph Grolnic. Now there are three of us.

You may be wondering what an indexed bond is. Put simply, it is a security whose real (inflation-adjusted) returns are guaranteed against inflation. This is done by tying interest and principal payments to a price index—hence the name. Because of that link,. indexed bonds make it possible to save without betting on inflation. Such bonds are available in several countries—such as Britain—but not in the U.S. So all Americans are forced into what this magazine once called "the casino society."

Ordinary U.S. government bonds appear to be completely safe investments. Default is unthinkable, and the rate of return is guaranteed if the bond is held to maturity. But the appearance of safety is illusory in a world of unpredictable inflation. Investors who bought 30-year government bonds in 1956 at interest rates of around 3% saw unexpectedly virulent inflation decimate their savings. By contrast, investors who bought five-year government bonds in 1981 at interest rates around 15% enjoyed a bonanza when inflation tumbled. Had those bonds been indexed, the 1956 bond buyer would not have been victimized by inflation, and the 1981 buyer would not have been rewarded by disinflation.

NO-RISK RETURN. These two examples illustrate that indexed bonds and ordinary bonds differ not so much in the real returns investors expect to receive, but rather in the riskiness of those returns. An indexed bond is a safe investment. In an inflationary world, an ordinary bond is a crapshoot.

That is the main reason to favor indexed bonds: as a way of separating the act of saving from the act of gambling. Gamblers have ample outlets these days, from the tables in Las Vegas to the pits in Chicago or the trading floors of lower Manhattan. Those who want to save without gambling should have at least one way to do so.

But, you will ask, aren't there already good hedges against inflation? Sad to say, the answer is no. For decades the stock market was advertised as a hedge against inflation, but research showed this claim to be emphatically false. In fact, stocks do about as badly as bonds when inflation rises. Even money-market accounts turn out to be inadequate inflation hedges.

Government indexed bonds would also confer many important side benefits:

- Retirees on private pensions now must worry that future inflation might erode the purchasing power of their pension benefits. There is no such worry with indexed annuities, such as Social Security. But no private pension fund can commit itself to indexed payouts unless its earnings are also indexed. Government indexed bonds that could be purchased by pension funds are the missing ingredient in the recipe for greater retirement security.
- Because safer assets generally command lower rates of return in financial markets, the government could probably reduce its average borrowing costs by offering indexed bonds.
- An indexed bond market would give policymakers accurate and timely readings on the real interest rate, and that would enable them to forecast and manage the economy more effectively. As things stand now, economists can only "guesstimate" the real interest rate by subtracting a shaky estimate of expected inflation from the observed interest rate. In Britain, no such guesswork is necessary. People just look up the answer in the morning newspapers.

Now comes the hard question: If indexed bonds are so wonderful, why hasn't Wall Street provided them?

One possible answer is that a financial institution cannot safely issue indexed liabilities unless it can invest in indexed assets. Indexed government bonds would provide those assets. My guess is that soon after the government issued its first indexed bonds, an outpouring of private indexed securities would follow.

A second possible answer, of course, is that Alicia Munnell, Joseph Grolnic, and I are the only people who want to buy indexed bonds. Skeptics point to the failure of the market for consumer price index futures, where, since June, 1985, bondholders who wish to hedge their inflation risks have been able to do so. Few have, suggesting to some people that no one cares about such hedging.

Here is a different interpretation. Futures markets are the home of gamblers, especially big-money gamblers—not of cautious savers. Because the inflation rate has been so quiescent since June, 1985, the CPI futures market has been a poor place for gamblers to have fun. Small investors who prefer the quiet life shy away from futures markets, which they regard as gambling dens.

If my interpretation is correct, the potential market for government indexed bonds, especially if they are issued in small denominations, is far greater than the CPI futures market indicates. Wall Street professionals might not play much. But Main Street amateurs probably would. Let the game begin.

The CHAIRMAN. Thank you, Mr. Blinder. I want to apologize to the panel and to Senator Garn for so patiently waiting. Unfortunately, I had to appear at another hearing this morning and testify myself and I just couldn't get free, but I do apologize. This is an excellent panel. We're in your debt for appearing hear today.

Mr. Dornbusch, go ahead, sir.

STATEMENT OF RUDIGER DORNBUSCH, PROFESSOR OF ECONOMICS, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Mr. DORNBUSCH. Thank you, Mr. Chairman.

I should like to speak about two issues. One, the problem of our policy mix today, too easy fiscal policy and a monetary policy that has to stand by and try to avoid financial pressures; and the second one, a dollar that is rising rather than declining. I see the main issue for monetary policy today to be the wrong fiscal policy and I see a serious threat that a Federal Reserve recession in view of the rising inflation is a very, very realistic outlook for next year unless fiscal policy changes.

INFLATION

Let me first talk of the inflation issue. I certainly do not believe that today double digit inflation is an issue. That would be posing the wrong question. But I do think that inflation is clearly rising. I show in my testimony in table 1 the comparison between the 1960's and the 1970's on page 3. The point I want to make is that all the talk today is exactly the same as it was in 1968—the talk that inflation isn't really there, that the economy has still room to go some though nobody knows how much. We do know that in the 1960's in the end the Federal Reserve made a recession and that the 1970's was a period of serious deterioration.

I see the outlook, without a change in fiscal policy, to be very much the same in the year ahead.

There is of course considerable discussion about whether in fact inflation is there. One set of indicators, the unemployment rate, one doesn't know at what level of unemployment inflation distinctly accelerates. Some believed it was 7, some believed it was 6, and now some believe it is 5. But it is clear that employment costs are rising today at sharply higher rates than a year ago and even hourly earnings have increased significantly.

Second, we have capacity utilization, another four quarters of the current growth rates would certainly take us to the peak of capacity utilization, so there is a second inflationary source.

The third, commodity price increases, if there should be further ones. Of course they are very difficult to predict.

So I do see us today at the level of 1968 with the critical decision, just as then, to shift the policy mix to have a significant tightening of fiscal policy in order to avoid overheating of the economy; not because of the fiscal crisis but because that is the appropriate way to slow the growth of the economy in a situation where inflation is clearly the big risk.

Today the dollar is rising and I consider that a very unfortunate byproduct of the election and the wrong policy mix. The Treasury without doubt is exploiting the markets preference for interest

earnings, risk-free. They have put a floor under the dollar in the summit process and with that floor under the dollar the interest differential in favor of the United States draws in foreign capital, leads to dollar appreciation. In the short term, that is an attractive policy because it cools down inflation and it looks good. It certainly avoids that Reaganomics gets unwound in the campaign.

But from a longer run point of view, there is certainly an issue that the dollar continues to be overvalued and that we want fiscal tightening with a significant expansion in net exports. The 5-percent real appreciation of the dollar that we have had in the last 2 months goes exactly in the wrong direction. It creates uncertainties about which way to go. It's the worst kind of mismanagement.

Why is the dollar going up? I think it's easy to explain. One is an overreaction to the trade numbers. There was earlier an extraordinary pessimism. Nobody wanted to look at professional forecasts when the trade numbers went double digit. Nobody multiplied them by 12 when they were single digit to see that they were still well above $100 billion.

The second reason is the agreement not to have the dollar decline which means no capital losses, just high interest rates.

And the third is the outlook for realistic possibility of a Federal Reserve recession some day if Congress doesn't move on the budget.

In the meantime, if we take a longer run view of the U.S. external balance and the dollar, there is every reason to believe that the dollar continues to be overvalued.

Forecasts of the U.S. current account 3 or 4 years out almost uniformly come out with numbers between $95 billion and $105 billion. There is some variation, but it's centered around $100 billion. That means a third of the deficit will go away, two-thirds will stay.

CHANGES IN THE WORLD TRADE STRUCTURE

The reason is that we have had since 1980 significant changes in the world trade structure. The first, newly industrialized countries have had a shift in manufacturing of $60 billion in our trade with them. In the 1960's and the 1970's, we equipped them with capital goods and that made for strong trade performance here. Today, those capital goods are at work exporting to us. That's one reason why the dollar certainly will have to decline further.

The second is we have a large growth gap between the United States and other industrialized countries. Cumulatively, we've grown 13 percent more than they have. As a result, our imports have grown much more rapidly than our exports, even assuming the same responsiveness to demand. That gap is still there today and it accounts for half of the trade deficit.

The third reason is that we haven't had the full devaluation. We only have had half. It has worked extremely well on the export side, but it has worked so far very poorly on the side of imports. Import prices have risen relatively little in response to dollar depreciation and imports continue to be very competitive, particularly in the area of capital goods.

I show in my testimony in figure 4 the prices of capital goods in the United States and imported capital goods. The prices of imported capital goods today are still at the level of 1980, whereas domes-

tic goods are 25 percent higher. So we have really had on the import side virtually no depreciation and in capital goods we have massive, massive loss of competitive advantage.

Looking ahead, there are two factors that worsen the U.S. trade outlook. One is the dramatic trade integration in Asia between Japan and Korea, Taiwan, Singapore, and Hong Kong. Last year, Japanese trade with those countries doubled as each reinforces the other's competitiveness by trading in components. The other one, Europe in 1992, with the creation of an internal market, certainly amounts to diverting trade from the United States.

So I conclude from all these factors on the trade side that we certainly cannot take the view that the dollar should be going up. On the contrary, we should have no dollar targets either for monetary policy nor for the Treasury.

I want to conclude my testimony by arguing that there's one very important institutional change which would improve the working of the economy. We have today a predominance of very, very short-sighted asset markets. The upward movement of the dollar is the very best example of speculation that is totally detached from fundamentals. A very moderate financial transaction tax, not only on foreign exchange but also on stocks, bonds, all financial assets—extremely moderate—would discourage the very short horizon speculation which today makes asset markets so volatile and so preponderant.

One can argue that a tax like that would simply shift business offshore, but it's worth remembering that Switzerland does have such a tax and is still considered the biggest financial center. So I do think one has to start thinking about that in order to get better functioning asset markets and for monetary policy not to become hostage of very short run capital market movements.

Thank you.

[The complete prepared statement of Mr. Dornbusch follows:]

Revised

INFLATION AND THE DOLLAR[1]

Rudiger Dornbusch
Massachusetts Institute of Technology

For election reasons and as a result of the failure to unwind the inappropriate policy mix, the U.S. economy is heading in the wrong direction: inflation is going up and so is the dollar. Unless the incoming administration addresses squarely and effectively the fiscal problem, interest rates, the deficit and the unemployment rate are all bound to go up, too. The election year puts serious constraints on monetary and fiscal policy. But next year there is no excuse for stunting trade improvement by dollar appreciation. The economy is overheating. To avoid a Federal Reserve recession and renewed dollar overvaluation the budget deficit must come down.

I shall argue that inflation risks can no longer be ignored. Inflation, rather than an imminent fiscal crisis is the reason that the budget must be tightened early in the next administration. Without a shift toward tight fiscal policy the Federal Reserve will sooner or later adopt a restrictive policy that will slow down the economy, as it has repeatedly in the past. But this time the recession would be far more expensive. I shall also argue that the current dollar appreciation is highly undesirable. The outlook for U.S. trade suggests the need for a dollar decline. The upward movement now underway distorts the trade adjustments that have been so difficult to achieve. My policy recommendation is to shift the economy to a tight fiscal policy, with monetary accommodation consistent with a 5 percent inflation. Exchange rate and commodity price targets strike me as counterproductive. But I see the need for institutional innovation in the form of a financial transactions tax to reduce the preponderance of shortterm financial markets and the noise on which they operate over productive activity.

1. The Situation Today

The debate whether inflation is already back, around the corner or only in the horizon makes one point clear: inflation is now the problem. The respite offered by several years of almost negligible rates has been broken by the resurgence of inflationary pressures from labor costs and commodity prices. Even though these pressures remain moderate and certainly do not portray anything like double-digit inflation, their do point in the direction of rising inflation. At some point that process will pass a threshold where the Federal Reserve decides to make a stand. Over the next year developments on the inflation front, real or imagined, will therefore increasingly become the chief focus of all asset markets. Inflation-related indicators, from commodity prices to employment numbers, are becoming key determinants of asset prices and increasingly put the monetary authorities on the spot.

The question today is when the Federal Reserve will initiate a shift toward tighter monetary policy to slow the growth of the economy and the emerging inflation fever. The issue is definitely not double-digit inflation of the 1970s style, but rather 1960s-type upward creeping inflation which must ultimately be stopped by keeping growth in line with the economy's

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[1]Testimony before the Committee on Banking, Housing and Urban Affairs of the United States Senate, July 12, 1988.

productive potential. Inflation now is becoming too high and too firmly ingrained for the Fed to ignore the tradeoffs: the longer the Fed waits in initiating the fight against inflation, the more massive the recession that needs to be created to beat inflation back down to the comfortable levels of the mid-1980s.

Financial markets react to that vulnerability because apparently monetary policy alone, rather than a monetary-fiscal mix, will have to deal with the cooling off. Fiscal tightening is out of reach not only in the current election year, but apparently even beyond. Under these circumstances financial markets rightly project a collision course: rising inflation sooner or later will force the Fed into a more restrictive stance. If and when that happens there are significant risks.

The comparison with the 1960s is appropriate because then, just as now, fiscal correction was delayed too long and the economy was allowed to overheat. In the end, the 1969 recession, brought about by monetary tightening and a shift in fiscal policy was the inevitable consequence. This time around several important extra difficulties emerge:

- The low rate of unemployment (after a major decline in real wages) and high rate of capacity utilization make the economy very vulnerable to inflationary shocks from commodity prices, the exchange rate or energy. The experience of massive inflation makes markets far more apprehensive to the possibility of major, sudden changes in inflation such as those of 1973-74 and 1978-79.
- Monetary policy may have to carry the full burden of anti-inflationary policy because irresponsible political leaders compete in promising the electorate the impossible: to sustain deficits for ever.
- Financial fragility is far higher and thus raises sharply the costs and risks of anti-inflationary monetary policy. Debt problems of LDCs, farmers and the energy sector make creditors vulnerable. Financial engineering from home equity loans to leveraged buy outs has created precarious private debt. The quality of all these debts will be severely tested by a rise in interest rates and a slowdown in the economy.
- Anti-inflationary policy in the U.S., by raising interest rates relative to those abroad, will lead to dollar appreciation. This means taking the dollar yet further away from levels consistent with balancing the external accounts.

To the extent that our interest rate increases are balanced by rate hikes abroad, the dollar might not rise. But instead, a world slowdown of demand would then result. Higher interest rates worldwide and reduced demand would certainly risk a major decline in asset markets. Last time a rapid, determined shift in monetary policy avoided an even more dramatic cumulative decline in asset markets. This time monetary tightening initiates the downturn and it is not obvious what will stabilize markets.

- The slowdown in the US economy which is the cure for inflation becomes the obstacle to correction of the twin deficits. Moreover, both via reduced revenues and higher interest charges the budget deficits get worse. The continuing external deficits build up an uncomfortable external debt. The overly strong dollar further delays a resumption of U.S. competitiveness and investment in manufacturing for world competition.

All these factors make an urgent case for a policy mix of significant fiscal tightening and no immediate change of course for monetary policy. Unfortunately the outlook is for rising interest rates, and further deterioration in key areas: the dollar, the external deficit, the budget, investment and financial fragility.

2. The 1960s and the Inflation Outlook Today

Table 1 shows the gradual increase in inflation in the 1960s. By 1968 the economy was precisely at the juncture where we stand today. President Johnson in the Economic Report of the President, stated:

> "Unless action is taken quickly to expand Federal revenues, a deficit that large-- in combination with a resurgent private economy--would have these consequences:
> . It would speed up a wage-price spiral already turning far too rapidly.
> . It would seriously impair our already difficult international economic position-- by damaging confidence in the dollar, and by stimulating imports and putting exports at a competitive disadvantage.
> . Financing such deficits would increasingly strain financial markets, pushing interest rates further above present record highs, and threatening another financial squeeze and another slump in home building."

Fiscal policy correction did not come in time, nor on the scale required. As a result the burden of stopping inflation fell on the Fed. By late 1969 interest rates had risen sharply and the longest peacetime expansion, having run into overheating, came to an end in December 1969.

Table 1 Creeping inflation
(percent per year)

	Unemployment	Inflation (CPI) (CPI)	Adj. Avg. Hourly Earnings
1965	4.4	1.6	3.6
1966	3.4	3.0	4.3
1967	3.7	2.8	5.0
1968	3.5	4.2	6.1
1969	3.4	5.4	6.7
1985	7.2	3.5	3.1
1986	7.0	1.9	2.4
1987	6.2	3.7	2.5
1988*	5.6	4.1	3.1
1989*	5.5	5.0	4.2

*Forecast
Source: DRI, Inc.

In January 1970 the Council of Economic Advisers wrote:

> "This restraint in the amount of credit being supplied occurred in the face of an unusually strong private demand for credit. In addition to the strong demand which ordinarily accompanies a high level of economic activity, the expectation of more inflation acted as a further stimulus to borrowing... By the end of 1969, most interest rates had climbed around 4 percentage points above their 1965 level. One must consult records for the Civil War and earlier to find comparable interest rates. And the steepness of the advance, on long-term as well as on short-term securities, may well have been unprecedented."

The discussion today is not unlike that of the late 1960s. Figure 1 places it in the historical context showing the inflation rate of the consumption deflator and the unemployment rate of males age 25 and over. Two questions are being asked: First, is unemployment really at the level where wage inflation risks accelerating or is there further room?

The belief that there may be scope for yet further reductions in unemployment, without risk of sharply higher wage inflation, is encouraged by two facts. On one side many observers were crying wolf already at a 7 percent unemployment rate and again at 6 percent. The fact is, we cannot establish with any confidence where wage inflation starts seriously, except with hindsight. On the other hand, there are a number of factors improving the chances of good wage performance. Chief among these are reduced union influence and wage leadership of union-dominated sectors and much higher competition in product markets which give firms a stronger incentive to resist wage inflation. On the other hand the recovery of profitability in the past few years, and the large decline in real wage would make labor more eager to exploit the bargaining position that comes with low rates of unemployment.

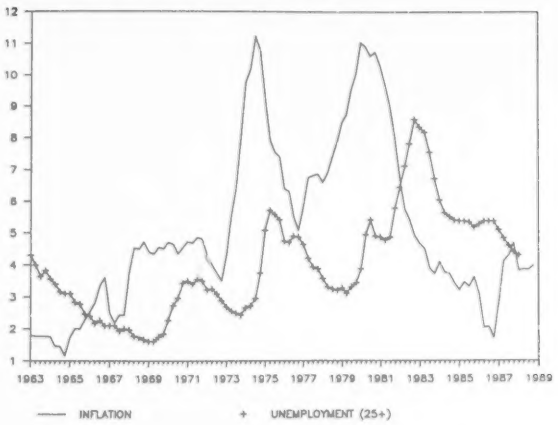
Other than labor costs, capacity utilization and supply shocks matter for the inflation outlook. Capacity utilization is not, as yet, at peak levels. But continued growth at 2.5 percent will take it there within the year. Investment in capacity expansion is not outpacing the impact of output growth on utilization. Hence, in more and more industries, the economy moves toward critical utilization levels.

Commodity shocks, other than the food price increases that are now in the pipeline, are not on the horizon. Of course, they rarely are (except when the dollar is grossly overvalued). But if they should occur they would interact with high capacity utilization and low unemployment to create an environment for rapid increases in inflationary expectation, wage and price inflation.

On balance then we are in the uncomfortable grey area where it is certain that inflation is the issue, but where there is no prospect of a sharp acceleration, sufficiently dramatic to shift fiscal policy. Yet inflation is increasing and hence the confrontation with the Fed is becoming one of the

FIGURE 1

INFLATION AND UNEMPLOYMENT



very likely events in the 18 months or so that lie ahead. Unless the next Administration and Congress decide to exploit the ongoing strength of the economy to introduce fiscal restraint macroeconomic performance will go off course. And a Federal Reserve recession will, at the least, set the clock back by some years on a long and pressing list of national priorities.

3. The Dollar and Trade Performance

Figure 2 shows the real effective exchange rate of the dollar. In this measure adjustments are made for inflation differentials and the group of partner countries included in the measure encompasses the highly competitive newly industrialized countries (NICs). By early 1988 the dollar was back to the level of competitiveness of 1980, or to the average of the 1970s. The 1985-88 depreciation, which seemed to have gone very far, simply took the economy back to the pre-Reagan levels of competitiveness in the world economy. The depreciation certainly did not make provision for a number of adverse trade factors which have accumulated since 1980, only in part as a result of the overvalued dollar.

The recent upturn of the dollar and the sharp improvement in the most recent trade numbers raises two questions: First, why the dollar rising today and whether this is desirable. Second, what are the long run prospects for U.S. trade and the dollar?

The Dollar Rally: Trade data are extremely volatile and hence difficult to forecast, especially on a monthly or quarterly basis. On a longer term basis our trade is governed by competitiveness (or the value of the dollar adjusted for inflation), spending levels here and abroad and structural changes such as the debt crisis which cuts Latin American demand for our capital goods or the emergence of the NICs as new suppliers. Even the exact relationship of these fundamental factors is hard to pin down exactly; the addition of noise, seasonal and timing factors as well as special events (e.g. Japan's minting of Emperor's birthday gold coins) make trade forecasting precarious.

This is the setting in which financial markets last year were excessively pessimistic about the effect of past dollar depreciation on the trade flows. The possibility of long adjustment lags was increasingly dismissed. The recent trade data have led to an overreaction in the other direction. Financial markets now sees more of a trade improvement than is likely to emerge. Professional forecasts do show a declining US trade deficit and a declining current account deficit. For example, in the DRI forecast the current account deficit declines from $161 in 1987 to $116 in 1990. While there is a 10-15% divergence among forecasters, the consensus is for trade deficits in the $100-$120 billion range. In fact, however, nobody predicts that the deficit will go away. The basic message is that one-third of the record 1987 deficit will go away, two-thirds will be left! Hence an excessive dollar optimism which is one of the reasons for the present dollar strength.

The long run trade outlook begs the question whether the dollar at current rates is sustainable and why it should be rising. The trade outlook implies that year after year the rest of the world will have to add to their dollar holdings. That is quite conceivable in a growing world economy. But it requires that dollar assets have attractive yields and, above all, that

FIGURE 2

there be no expectation of dollar depreciation since otherwise dollar bonds would turn out to be Kamikaze bonds (as they were in 1985-87). Is it possible that a string of "disappointing" trade numbers could lead to a dollar plunge which then feeds on itself, leading to a massive decline? This is the hard landing scenario where the Fed is forced to stop a cumulative dollar decline by a sharp increase in interest rates, bringing about a US recession, and with prevailing financial fragility quite possible a worldwide decline in asset markets.

In the short run this scenario is unlikely. On the contrary, the earlier dollar depreciation is being rolled back by strong capital inflows. Since April 1988 the dollar has been appreciating against other currencies reaching last week a cumulative appreciation of 5 percent. The reason for this appreciation is threefold. One reason is a reversal of earlier pessimism on trade adjustment. Another is the understanding by market participants that the Treasury does not want to see a dollar decline that might unravel Reaganomics in the middle of the campaign. The third is the anticipation of a possible Federal Reserve fight against inflation in the coming year which removes the down side risk on the dollar. We comment briefly on the latter two.

Over the past few months the Treasury has cultivated the belief that dollar adjustment has gone far enough. Mr. Baker has expressed that view and the Toronto summit certainly did not discourage the believe that the G-7 saw exchange rates in the right place, at least for the time being. For the Treasury stability of exchange rates is important for anti-inflation reasons. It also would help show (in the short run) improving trade results. Our trading partners are only too willing to yield on putting a floor under the dollar; their concern is to maintain or even recover competitiveness. As a result of the floor under the dollar the high interest differential in favor of the U.S. (and the sharply reduced risk of losses on dollar positions in the near term) draws capital into dollar denominated assets. U.S. interest rates exceed those on Deutsche Mark or Yen assets by more than 3 percentage points, enough to bring money from the moon if there is no risk of capital loss.

The possibility of a Federal Reserve tightening in 1989 further strengthens the incentive to move into dollar assets. The prospect of rising interest rates persuades market participants that there will be exchange rate gains on dollar assets (or much reduced risks of losses). As a result dollar assets gain in attraction and the risks of a shortterm trip, which ultimately must be unwound, fall drastically. The combination then of shortrun dollar floor followed by a Federal Reserve recession is a situation much like the early 1980s where the dollar was allowed to appreciate and become overvalued as an anti-inflation policy.

But it is also clear that the dollar appreciation that is now underway is immensely counterproductive (except in the very shortrun, on the inflation side) and will ultimately have to be undone. In the meantime the appreciation interferes with further US trade adjustment. Firms on the export side may halt plans to develop export prospects. On the side of import competition domestic firms will postpone investment plans and foreign firms will be reluctant to accept their loss in competitiveness if they see the possibility of a reversal of the previous dollar decline.

On the inflation side dollar appreciation certainly helps cool down the fact, and more so the talk, of imminent inflation. Dollar appreciation will stop price increases of commodities in world markets and perhaps even reverse some of the large price increases of primary commodities. If the dollar strengthening thus succeeds in putting to rest the upsurge of inflation it plays a very central role in keeping economic growth and stability through the election. Moreover, this is accomplished without even raising interest rates, simply by putting a floor under the dollar. There are significant costs in terms of increased dollar volatility and distorted trade adjustments, but they are much less visible and come mostly later, as does, of course, the undoing of the appreciation.

Trade and the Dollar in the Long Run: As noted above, forecasts for the U.S. external balance show a steady improvement. But even so, the current account deficit will continue to be in excess of 2 percent of GNP in the 1990 as shown in Figure 3. We point here to a number of the reasons why, after returning to the level of the real exchange rate of 1980, the deficit persists.

U.S. trade adjustment is clearly underway. But there is a striking discrepancy between the export and the import side. As Table 2 shows, the signs of dollar depreciation are far more apparent for exports than for imports.

Table 2 Price and Volume Changes: 1985-88:I
(Cumulative Percentage Change)

	Exports		Imports	
	Price	Volume	Price	Volume
Consumer Goods	8.7	50.0	20.7	16.8
Capital Goods	3.1	58.3	18.2	57.4
Autos	4.9	16.2	21.3	11.0

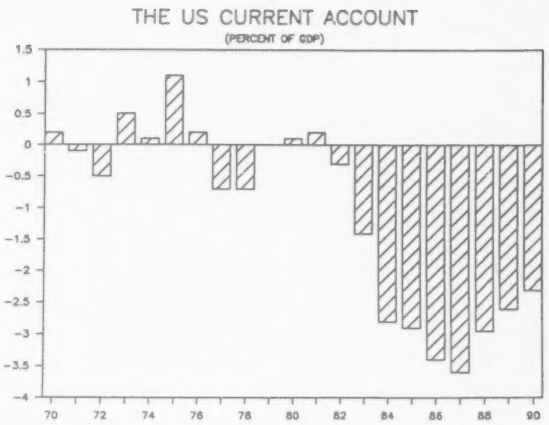
Source: Survey of Current Business

On the import side growth in volume is continuing and price adjustment, contrary to what might be expected after a large depreciation, has been extremely moderate. In a sense, on the import side, the U.S. has basically not experienced a devaluation.

This is especially apparent in the capital goods sector there was no gain in competitiveness on the import side. As Figure 4 shows, prices of imported capital goods today are still near the 1980 level, whereas prices of domestic capital goods have increased more than 25 percent. In the consumer durable goods sector, similarly, the relative price of imports is still below the 1980 level.

The relatively modest increase of import prices is largely due to two factors. One is the reduction in profit margins of many firms who price to maintain their newly acquired market share. But equally important is the significant reduction in costs of foreign suppliers.

FIGURE 3



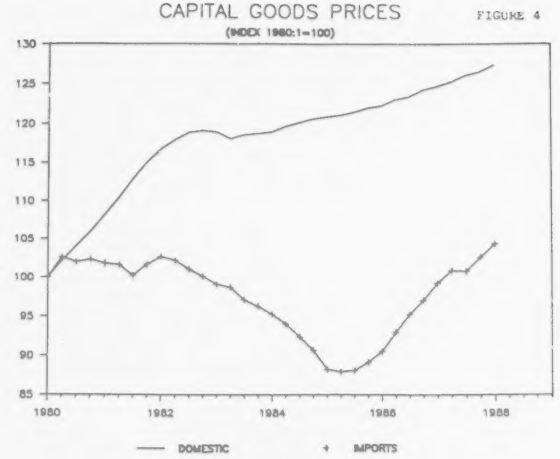


FIGURE 4

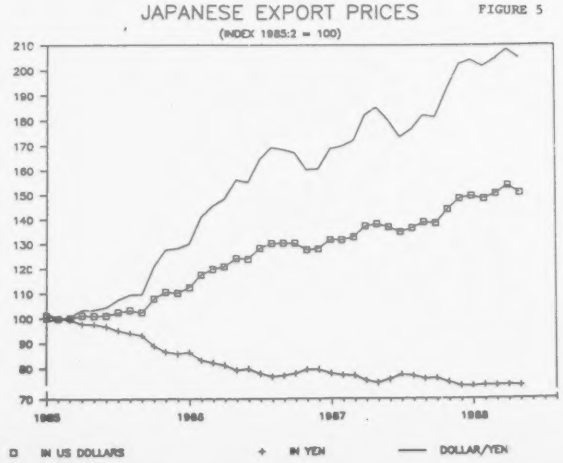


FIGURE 5

Japan offers an example of this. Figure 5 shows Japanese export prices in Yen and $US as well as the dollar exchange rate. It is apparent that dollar export prices rose far less than the dollar price of Yen. The extent to which Japanese firms managed to absorb the dollar depreciation or chose not to pass it through into higher dollar prices-- differed widely across export sectors.

Cost reductions were certainly another factor. Among the main reasons Japanese firms could afford to limit their increases of dollar prices in the U.S. market the following can be identified: Initial profit margins, after the 5 year dollar appreciation were extremely large. The skipping the wage bonus which, in the Japanese system, is an effective way of making nominal wages flexible and responsive to the individual firms' profitability. Firms can put pressure on domestic suppliers to lower their prices for intermediate inputs. Firms can shift to imported components supplied by low cost Southeast Asian exporters notably Korea, Singapore, HongKong and Taiwan. In addition, an important reduction in imported material costs took place, ranging from oil to all other primary commodities.

The legacy of the overvalued dollar is quite apparent in Table 3. In the period 1975 to 1980, with a competitive value of the dollar, import penetration increased in both the capital goods sector and in consumer goods. But the increase was very moderate compared to the massive rise since 1980. Moreover, even the most recent data on import penetration do not show any decisive reversal of foreign penetration of the U.S. market.

Table 3 Import Penetration in the U.S.
(Percent of Domestic Demand)

	Consumer Goods	Capital Goods
1975	5.4	8.0
1980	6.9	14.6
1987	11.6	37.7

Source: Federal Reserve Board

As already noted, on the export side dollar depreciation has worked with very strong results. But, as strong as the export performance of the past two years has been, we must note that in some sectors the export loss during the period of overvaluation has not been made up. Among capital goods, other than business machinery, present export levels remain far below those of 1980 and the same is trus for consumer goods.

In manufacturing, outside business machinary, export growth has in fact then been far from complete in making up the losses incurred during the overvaluation period. Just as on the side of imports market share has been lost to foreign competitors. The satisfaction with strong aggregate export growth overlooks the continuing export weakness in many segments. There is surely further trade improvement to be expected. But to believe that the major effects of the dollar adjustment still lie ahead is overly optimistic. In 1988

and 1989 we can expect further export growth at double digit rates. When we are done, manufacturing (outside business machines) will be broadly back to the level of 1980. But that is performance far below par in a growing world market. The modest performance draws attention to the new competition from newly industrialized countries that we comment on next.

The Newly Industrialized Countries: In the 1960s and 1970s the U.S. was a major exporter of capital goods to developing countries. In these years countries like Korea or Brazil built up an industrial capacity which today makes them important new forces in world trade. It is true, the top ten newly industrialized countries account for barely 15 percent of world trade and hence it is tempting to play down their role. But Japan does not account for much more and the rise of Japan as a trading nation from the 1950s to the 1970s is a sober reminder that the newcomers may grow up in much the same way and perhaps even faster. This is certainly the appearance that we get from the swing in U.S. manufacturing trade with the NICs in only the past few years.

Table 4. U.S. Manufacturing Trade with the NICS
(Billion $ U.S.)

	Exports	Imports	Balance
1980	55.6	29.5	26.1
1986	49.4	77.3	-27.9

To some extent the large swing in our manufacturing trade with the NICs is a reflection of the debt crisis. Countries like Mexico or Brazil have sharply increased their exports to earn foreign exchange in order to service their debts. But it is difficult to believe this effect is transitory. On the contrary the very demonstration of export success leads policy makers in those countries and international institutions who advice them to be persuaded by an export-led growth model. The value of the dollar also had some effect in propelling Southeast Asian countries, who did not follow the Yen, into new export potential. Again this is likely to be irreversible. The Yen appreciation many simply have provided the initial impetus for a starkly enhanced export orientation of Southeast Asia.

The fact that is emerging very clearly is that the old model of developing countries in world trade is altogether obsolete. The old model asserted that development is a gradual and slow process-- a matter of many decades. It also asserted that trade is a two-way street: rapid exports of developing countries make for strong growth in incomes in these economies and therefore provide a market for exports from the center. But it is clear that neither of these premises holds. Development has speeded up in the postwar period. Technology transfer today, relying on high education levels in countries such as Korea, can be much more rapid. The availability of capital is not an issue either, or at least it was not until the debt crisis. As a result developing countries have been turned very rapidly into world class exporters

in many areas that ten years ago were occupied by only industrial countries. The low rates of hourly compensation (see Table 5), combined with productivity levels that in many activities match those in the United States (e.g. automobiles, TV sets), turn these countries into formidable rivals in world trade.

Table 5 Hourly Compensation in Manufacturing
(1987 Wage in $ U.S., Index U.S.= 100)

United States	100	Korea	15
Germany	125	Taiwan	17
Italy	92	Singapore	18
Japan	84	Brazil	11
France	92		
United Kingdom	67		
Spain	58		

It is interesting to observe that Southeast Asian countries are evolving a sharply increased trade integration. Japan's imports from the 4 major NICs (Korea, Taiwan, Hong Kong and Singapore) doubled in 1987 relative to the average of the previous decade and the early 1980s. The level of exports also increased sharply. Asian trade developments thus continue to be adverse for the U.S. external balance. The same is true, of course, for the impact of the continuing LDC debt crisis which cuts U.S. exports and leads to unusual levels of imports from Latin America.

The Growth Gap: A third major factor in the continuing trade deficit is the large gap in spending growth between the U.S. and the rest of the world. In the period since 1980, as shown in Figure 6, U.S. spending increased far more rapidly than it did abroad. Moreover, if one adjusts foreign spending growth for the fact that much of it occurred in Japan which is a closed market, there is little surprise in a large U.S. trade deficit. Our imports have simply grown much rapidly than our exports as a result of this divergence in spending growth.

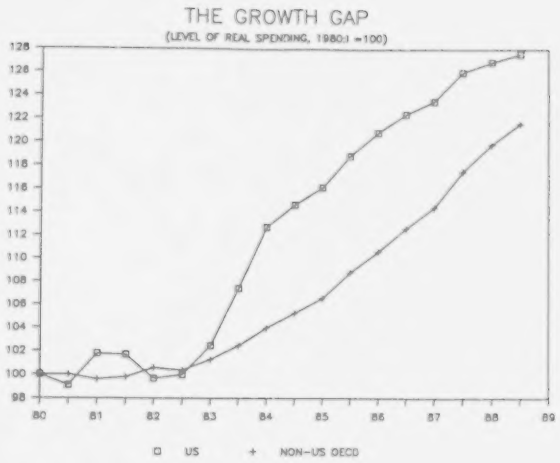
Since 1985, as Table 6 shows, there has been some reversal.

Table 6 Adjustment of World Imbalances:1985-88
(Annual Average Percentage)

	US	Europe	Japan
Export Volume	11.1	3.8	2.1
Import Volume	7.6	6.6	8.2
Domestic Demand	2.9	3.3	4.6
GNP	2.8	2.5	3.8

Source: OECD Economic Outlook, July 1988

FIGURE 6



Europe, but especially Japan, have stepped up their growth rates of domestic demand. They are now enjoying domestic-led growth rather than growing off the U.S. fiscal expansion. But the differential with U.S. growth (especially in the case of Europe) continues to be far too moderate to contribute in a major way to a reduction of the continuing U.S. deficit.

Longrun Dollar Outlook: The prospect for a continuing external deficit (barring a major recession) makes it apparent that in the long run the real value of the dollar needs to decline. When fiscal policy ultimately tightens lower interest rates and a lower value of the dollar have to assure continued growth in the economy.

The short run inflation-tight money outlook masks this need for dollar correction. Unfortunately the current dollar rally will certainly further aggravate trade fundamentals and thus requires an even larger dollar correction some years from now. The correction will have to be larger because failure to adjust earlier adds the interest burden of continuing large deficits.

4. Policy

In concluding I would like to comment briefly on the policy mix and on an important structural reform to be undertaken in asset markets. The Policy Mix: The immediate priority for monetary policy is to sustain the U.S. economy to offer the new administration the best possible opportunity for fiscal correction. If the opportunity for a shift in the policy mix is missed early next year, it is difficult to see a better time for it down the road. Moreover, without a tightening of fiscal policy (because of the overheating of the economy and the unfavorable demand mix, rather than an imminent fiscal crisis) the economy will go further and further off course. The immediate priority then should be to create the conditions for fiscal correction, not a premature monetary tightening.

Exchange rates and commodity targets seem very inappropriate intermediate targets. As argued above, the shift in the U.S. demand balance, as well as important structural changes in the world economy, require significant room for exchange rates to move. It is difficult to argue that the dollar is anywhere near the appropriate level. Stunting further trade improvement, because of crowding out risks, is exactly the wrong policy.

Perhaps a confrontation between the Fed and the politicians is inevitable. But the preferred option is that the Fed lays out a contingent monetary plan which shows alternative mixes of monetary and fiscal policy. The administration and Congress then can take their pick. It is clear that the Fed next year cannot maintain the ambiguous bystander role which is convenient and appropriate at this time.

The appropriate policy mix would involve a phased-in elimination of the budget deficit over a two or three year period combined with a policy of accommodation by the Federal Reserve, Accommodation here means a level of shortterm real interest rates which encourages a growth of output at a an average rate of 2 percent over the next three years. Along that path there

is a slowdown in 1989 so that moderation in wage settlements leaves room for increased dollar depreciation without accelerating inflation beyond 5 percent. Trade improvement and increased investment would then carry growth, substituting for the fiscal stimulus. Increased investment could be relied on in part as a result of increased competitiveness, in part as a consequence of a reduced cost of capital. The removal of a hard landing scenario would do much to put the economy on a more stable path, even at a 5 percent inflation rate.

Commodity price targets have no justification. There is no evidence to show a stable relationship between commodity prices and general inflation.[2] Moreover, commodity price movements are dominated by real factors (e.g. the anchovies) and the dollar exchange rate. Using commodity price-oriented monetary policy may simply amount to a disguised exchange rate target.

A Financial Transactions Tax: Comparing the environment in which monetary policy acts today with that of the 1960s draws attention to the striking change in asset markets. Four points are especially relevant:

- The disappearance of transactions and information costs, as a result of technological developments, have reduced the horizon of traders to a few hours. Asset management focuses almost exclusively on shortterm capital gains.
- The large volatility in asset prices, and the resulting scope for capital gains, have made asset market participants more trigger happy than ever.
- Because of inflation) bonds have an effective maturity which is very short, so much so that short and longterm bonds move together even if the latter have a thirty year maturity. The short effective maturity of all instruments thus adds to and reinforces the short horizon made possible by technical innovation.
- Financial fragility is the consequence of a poor regulatory framework that has failed to discourage excessive debt accumulation.

In this setting monetary policy risks becoming entangled in its own effects. The Fed plays strategic games with the market. The market speculates on what the Fed speculates on and in the end shortterm noise and imagination, not longterm fundamentals come to determine asset prices and monetary policy. The more the Fed looks at noisy indicators, the more the market is drawn to concentrate on these indicators. Month to month trade numbers and employment figures, each of which is exceptionally noisy, are now the principal determinant of the 30 year bond yield and of the value of the dollar!

It is certainly impossible, and undesirable, to roll back technological gains and integration of financial markets. But it is equally essential to recognize that there is the a need for what James Tobin has called "some sands in the wheels". An effective way to do this is the introduction of a very moderate financial transactions tax which would apply to all

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[2] See M.Durand and S.Blondal "Are Commodity Prices Leading Indicators of OECD Prices?" Unpublished manuscript, OECD, February 1988.

transactions, in stocks, bonds and foreign exchange alike. The purpose of the tax is to lengthen the horizon of the market and thus throw much more weight to fundamentals speculation and away from noise trading.

The basic fact of life in asset markets is that the average professional thinks he or she can liquidate a posicion before a major turn in the market. Trading on noise can generate cumulative market movements out of thin air, taking asset prices far away from fundamentals. Unless there is offsetting speculation based on fundamentals the market can move away from realistic levels for extended periods.

Of course, what is said here of the exchange market applies equally to markets for real estate, stocks or longterm bonds. The more diffuse the fundamentals the more room there is for shortrun speculation to dominate and hence for asset prices to depart from fundamentals. None of this is new. Keynes in the General Theory (chapter 12) notes the market's pursuit of shortterm capital gains rather than longterm holding yields:

> "It might have been supposed that competition between expert professionals, possessing judgment and knowledge beyond that of the average private investor, would correct the vagaries of the ignorant investor left to himself. It happens, however, that the energies and skill of the professional investor and speculator are mainly occupied otherwise. ..They are concerned, not with what an investment is really worth to a man who buys it "for keeps", but with what the market will value it at, under the influence of mass psychology, three months or a year hence...
>
> Of the maxims of orthodox finance none, surely, is more antisocial than the fetish of liquidity, the doctrine that it is a positive virtue on the part of investment institutions to concentrate their resources upon the holding of "liquid" securities. It forgets that there is no such thing as liquidity of investment for the community as a whole..."

Needless to add, since Keynes wrote this and advocated as a remedy a financial transaction tax, the market horizon has shrunk yet further.

Because noise trading involves an externality-- the possibility of cumulative departures from fundamentals (bubbles)-- and is encouraged by the costlessness of trading and the apparent liquidity of the market there is the need for the equivalent of speed limits or gun control. No doubt this is unpopular, but there is also no doubt that it would avoid the abnormal predominance which financial markets enjoy in todays economy.

A financial transactions tax (FTT) is designed to increase the expected holding period of assets and hence filter out much of thew noise, and the cumulative trading on noise, in asset markets. Of course, the FTT in turn is subject to other limitations and criticisms. The attraction of an FTT is that when levied at a very moderate rate it creates a tax on shortterm (round trip) transactions, while leaving the profitability of longterm investment virtually unaffected.

The major objection to such a tax are two. One is the resource cost of implementing yet another tax. That cost would have to be held

against the costs of large asset price volatility and misalignment and the resulting resource cost. On that basis, presumably it comes out to be small. The second is the argument that with the tax implemented in only one or a few countries business would merely shift to offshore centers. In this context it is worth noting that both Japan and Switzerland do have a financial transaction tax. An appropriate response to the offshore problem is to develop such a tax (rather than exchange rate targets) in cooperation with other countries. In the meantime there is not much cost in moving ahead and designing mechanisms that implement the tax in an efficient, pervasive manner. The revenue gains for the Treasury are highly desirable and the disincentive for myopic speculation are even more so.

The CHAIRMAN. Thank you, Dr. Dornbusch.
Dr. Fair.

STATEMENT OF RAY FAIR, PROFESSOR OF ECONOMICS, YALE UNIVERSITY

Mr. FAIR. Thank you, Senator.

In Chart 1 on the first page of my written testimony I give the percentage change in GNP and the percentage change in the GNP deflator by four quarter periods since 1983. There's no question, to echo what others have said, that the economy has really had a remarkable performance in the past few years judged by GNP, inflation, as well as unemployment, which is not on this chart.

This pattern, of course, masks the changes that have taken place in the trade deficit and the Government deficit and so forth, but if we look simply at GNP, inflation, and unemployment, we really have done a rather remarkable job and I would agree with Professor Blinder that the Fed should get some credit for that.

I really don't have much more to say about that, nor do I have much to say about the mix question between monetary and fiscal policy, which has also been touched on by others. Almost everyone agrees that we should have in the future a tighter fiscal policy and an easier monetary policy to offset the negative effects from the contractionary fiscal policy, to get the Government deficit back down.

As I said, I have nothing new to say here. I just wanted to add one thing, which is to point out a bonus that you get when you change the mix in this way. This bonus is what I call the interest payments effect on the Government deficit. Because the Government debt is now so high, if you lower interest rates you get a substantial savings in Government interest payments. I ran an experiment with my econometric model where I assumed that the Fed lowered through open market operations short-term interest rates by a percentage point. This gradually lowers long-term rates, which in itself is expansionary—if you lower interest rates you expand the economy. I wanted to focus simply on the interest payments effect, so I took an exogenous component of spending and simply lowered it to the point where I left GNP the same as it was in the base case. The change is thus simply a change in the interest rate, keeping the GNP and the economy roughly the same, to see how much this affected the Government deficit.

In the first year, there was a gain in lowering the deficit of $5.6 billion; and in the second year, $13.7 billion. So there's a substantial bonus, as I said, that one gets from an easier monetary policy. Given that most people would want the mix to change anyway, this is just simply icing on the cake, and the numbers are now substantial. So that any discussion that takes place on how contractionary fiscal policy should be in the future should take this effect into account, assuming the Fed responds to offset the contractionary effects, and I see no reason it wouldn't, aside from perhaps worries about the dollar.

FED POLICIES AND POLITICAL FORCES

Now let me turn finally to one of the questions Senator Proxmire addressed in his letter. There's been concern not only by Senator Proxmire but by many others from time to time on whether the Fed is unduly influenced in its policies by political forces. In order to address that question, I really need to answer two questions. The first is, how does the economy—that the Fed has some control over—how does the economy affect voting behavior? We really need to answer that question first. Then, given the answer to that question, you can ask the second question, is it advantageous then for political parties to put pressure on the Fed to manipulate the economy to then help them win the Presidential election?

So the first thing I focus on is the question of how does the economy affect voting behavior. Beginning about 1976, I developed an equation that predicts votes for Presidents—the Democratic share of the two-party vote. Not surprising to anyone in this room, the economy does have some effect on votes for President. The econometric question that one addresses in this is how does it affect it, which economic variables seem to be most important, and what are the quantitative magnitudes, how much do you get out of this.

From the work I've done, the two most important economic variables seem to be the growth rate of GNP, real growth rate per capita, between 6 and 9 months prior to the election; and the inflation rate in the 2-year period prior to the election. So the two variables are GNP growth and inflation, and the relevant time periods seem to be for GNP growth between 6 and 9 months before the election and for inflation about 2 years before.

On page 3 I give the past history of this equation in terms of predicting the elections, starting with 1916. The equation has a remarkable ability to predict Presidential elections I believe. The average error that this equation makes is about 3 percentage points, and there's only one election where the error was really quite large, which is the Johnson-Goldwater election of 1964, where the Democrats got 61.3 percent of the vote. They were predicted to get 54.2 percent, which is an error of 7.1 percentage points. So there was a rather large error in predicting that election, but there is only one other case in which the error was even as large as 4 percent.

Three of the elections were predicted incorrectly. Kennedy-Nixon in 1960, Nixon-Humphrey in 1968, and Carter-Ford in 1976. But the errors in these cases, as you can see from page 3, were really very small. The elections were really just too close to call, and the equation predicted them to be that way and just got the sign wrong.

The Reagan victories in both 1980 and 1984 were predicted quite well. Again, this is easy to see from the equation. In 1980, the growth rate was minus 5.7 percent over this period and inflation was 9 percent. So Carter was predicted to lose by a substantial amount. And in 1984, the growth rate was 2.7 and inflation was 3.7. Reagan had the incumbency advantage, you get some headstart for that—and he was predicted to win again by a landslide. So you don't really have to appeal to Reagan's personality in order to see why he did so well in the two elections.

Now you can use this equation to predict 1988. In order to do that you need to give me, or give the equation, an estimate of what the inflation rate will be—we pretty much know that because it's the 2-year period before—and what the growth rate will be, per capita growth, 6 to 9 months before the election.

I've given you a table on page 4 in which you can simply choose yourself values of what I call "g," the growth rate and "p," the inflation rate, and see what you predict. If you use a growth rate of 2 percent—remember this is per capita—and an inflation rate of 4 percent, which is roughly what my econometric model predicts, if you look on the table you see the Democrats are predicted to get 48.2 percent of the vote, which means that the Republicans are predicted to win by 1.8 percent. This margin is within 3 percentage points, which is the average error, and so the election is really too close to call.

So the basic point of this is that, given what seem to be reasonable predictions now of the economy, the election seems too close to call, although the Republicans have a slight headstart.

Now to come back to the question of the pressure on the Fed. If what I have just outlined is in fact the way voters behave, you can see there are obviously some advantages for a party to try to push the Fed in one direction or another if it were irresponsible.

For example, if the Fed could be induced to increase the growth rate of the economy to 6 percent in this year, leaving the inflation rate at 4 percent for now because most of the inflation consequences will take place later, then the Democrats would be predicted to get 44.1 percent of the vote, which would be a substantial Republican victory. the Republicans could have some confidence that they would win.

On the other hand, if the Democrats for some reason put pressure on the Fed to induce a recession, minus 6 percent growth or something, then you have a substantial Democratic victory. The relationship between growth rate and vote share is about one-for-one. For every percentage point increase in growth, the incumbent party gains about 1 percentage point of the vote. For inflation, for every 1 percent increase in inflation, the incumbent party loses about a third of a percentage point, which is what's reflected in this table.

Now to conclude, from my ivory tower at Yale, I have no inside information about what goes on between the administration and the Fed, but the main point is that it's really too late to try to influence the Fed. The effects of monetary policy on the economy, as we all know, takes some time, and unless the Fed did something really extreme between now and October, there really isn't time left for this kind of pressure.

So I don't think that Senator Proxmire or anyone else really needs to worry at this time about the effects on the Fed. They maybe should have worried last year, but now it's really too late, and so I don't see this as an important issue. I think Congress and the administration and the Fed should get on with trying to change the mix in the future, in 1989 and 1990, toward an easier monetary policy and a tighter fiscal policy.

[The complete prepared statement of Mr. Fair follows:]

Testimony before the Senate Committee on Banking, Housing, and Urban Affairs

July 12, 1988

Ray C. Fair
Yale University

I. The Recent U.S. Performance

The performance of the U.S. economy since 1983 has been remarkably uniform in terms of real output growth and inflation. The following chart shows the rate of growth of real GNP and the GNP deflator in each four-quarter period since the third quarter of 1983.

Chart 1

Four-Quarter Growth Rates in Real GNP and the GNP Deflator

Period	Percentage Change in Real GNP	Percentage Change in the GNP Deflator
1983 III - 1984 II	7.4	3.8
1983 IV - 1984 III	6.5	3.8
1984 I - 1984 IV	5.1	3.3
1984 II - 1985 I	3.4	3.1
1984 III - 1985 II	2.5	3.2
1984 IV - 1985 III	2.9	3.1
1985 I - 1985 IV	3.3	3.2
1985 II - 1986 I	3.6	2.7
1985 III - 1986 II	3.3	2.6
1985 IV - 1986 III	2.6	2.9
1986 I - 1986 IV	2.2	2.2
1986 II - 1987 I	2.0	2.8
1986 III - 1987 II	2.5	3.1
1986 IV - 1987 III	3.1	2.6
1987 I - 1987 IV	4.0	3.3
1987 II - 1988 I	3.5	2.9

The chart shows that after rapid output growth in 1983, the economy settled down to a fairly steady growth rate of around 3 percent. Inflation has also remained around 3 percent. My forecast for the four quarters beginning with the second quarter of this year is consistent with this general pattern. My econometric model is forecasting real growth of 3.1 percent and inflation of 3.5 percent for the 1988 II - 1989 I period.

This uniformity, of course, masks the large changes that have taken place in the U.S. government deficit and the U.S. balance of payments since 1983. But judged in terms of real output and inflation, the recent economic performance has not been all that bad.

II. The Interest-Payments Effect on the U.S. Government Deficit

Almost everyone agrees that the U.S. government deficit should come down. If Congress and the Administration could agree on a tax and expenditure package that would lower the deficit, the hope is that the Federal Reserve would offset the negative effects that the contractionary fiscal policy would have on the economy by engaging in an easier monetary policy. In other words, the hope is that we can change the monetary policy - fiscal policy mix in favor of a tighter fiscal policy and an easier monetary policy. Aside from possible exchange rate worries, I see nothing in recent Fed behavior that would indicate that it would not cooperate in changing the mix. The Fed should clearly get some credit for the steady growth that we have had since 1983.

I have nothing new to add about the mix question here. What I would like to emphasize, however, which is sometimes not appreciated, is the large interest-payments effect on the deficit that now exists from a change in interest rates. (This large effect is due to the large U.S. government debt that now exists.) I ran the following experiment with my model to estimate the size of the interest-payments effect. I assumed that beginning in the third quarter of 1988 the Fed through open market operations lowered the three-month Treasury bill rate by one percentage point (from my base forecast). This by itself increases GNP, but to isolate the interest-payments effect, I wanted to keep GNP roughly unchanged. I thus lowered at the same time an exogenous component of spending each quarter by an amount sufficient to keep GNP roughly unchanged.

In the first year the interest payments of the Federal government were $5.6 billion lower, and in the second year they were $13.7 lower. These are obviously fairly large numbers, and so there are substantial benefits on the deficit from a change in the monetary policy - fiscal policy mix solely from this one effect. Given that most people think that the mix should be changed anyway, this effect is simply an added bonus.

III. Voting Behavior and the Economy

This committee and others have been concerned from time to time as to whether the Federal Reserve is unduly influenced by political forces. There is considerable evidence that the state of the economy has an important effect on votes for president, and so there is obviously some concern as to whether an administration, desiring to increase its chances of being reelected, puts undue pressure on the Federal Reserve in an election year to run an easy monetary policy. I will first consider the question of how the economy affects voting behavior and then consider the undue pressure question.

From the work that I have done, two economic factors seem particularly important in explaining votes for president. The first is the growth rate of real GNP per capita in the six-to-nine month period before the election. The second is the rate of inflation in the two year period before the election. (There is also an incumbency effect. If the President himself --

herself in the future? -- is running again, he has about a 4 percentage point head start.) Given values for the two economic variables and the incumbency information, one can use the equation that I have estimated to predict the vote. Not surprisingly, a high growth rate benefits the incumbent party and a low growth rate benefits the non incumbent party. Conversely, a high inflation rate benefits the non incumbent party, and a low inflation rate benefits the incumbent party. As a rough order of magnitude, for every one percentage point increase in the growth rate (all growth rates and inflation rates are at annual rates), the incumbent party gains about one percentage point of the two-party vote, and for every one percentage point increase in the inflation rate, the incumbent party looses about a third of a percentage point of the vote. (The equation described here was first developed in 1976. The latest discussion of it is in Ray C. Fair, "The Effect of Economic Events on Votes for President: 1984 Update," Political Behavior, 1988.)

The equation has a remarkable ability to predict past elections. The following are the actual and predicted values of the Democratic share of the two-party vote for the elections since 1916.

Democratic Share of the Two-Party Vote

Year	1916	1920	1924	1928	1932	1936	1940	1944	1948	1952	1956
Actual	.517	.361	.457	.412	.591	.625	.550	.538	.524	.446	.422
Predicted	.522	.352	.415	.448	.575	.633	.573	.570	.513	.456	.437
Error	.005	-.009	-.042	.036	-.016	.008	.023	.032	-.011	.010	.015

Year	1960	1964	1968	1972	1976	1980	1984
Actual	.501	.613	.496	.382	.511	.447	.408
Predicted	.492	.542	.509	.396	.497	.447	.425
Error	-.009	-.071	.013	.014	-.014	.000	.017

The average error that the equation makes is about 3 percentage points. There is only one election in which the error is quite large, which is the Johnson-Goldwater election of 1964. The equation predicted Johnson to win with 54.2 percent of the vote, when in fact he got 61.3 percent, which is an error of 7.1 percentage points. Otherwise, there is only one other election in which the error is greater than 4.0 percentage points, which is the Davis-Collidge election of 1924, with an error of 4.2 percentage points. There are three elections in which the winner was predicted wrong: Kennedy-

Nixon in 1960, Humphrey-Nixon in 1968, and Carter-Ford in 1976. The errors in these three cases were, however, quite small. The elections were very close, and the equation predicted them to be very close.

The Reagan victories in 1980 and 1984 were predicted very well, and it is easy to see why. In 1980 the growth rate was -5.7 percent and the inflation rate was 9.0 percent. Even though Carter had the incumbency advantage, the economy was way against him and Reagan was predicted to be an easy winner. In 1984 the growth rate was 2.7 percent, the inflation rate was 3.7 percent, and Reagan had the incumbency advantage, all of which adds up to a sizeable Reagan victory. Note that one need not appeal to Reagan's personality to explain his large victory margins.

One can use this equation to make a forecast of the 1988 election. The forecast depends on the values that one chooses for the growth rate and the inflation rate, and so what I have provided below is a table of forecast values, each value based on a particular set of values of the growth rate and the inflation rate. (Remember that the growth rate is the growth rate of per capita real GNP. The rate of population growth each year is about .9 percent. Also, although the growth rate in the following table is the growth rate in the six month period before the election, nearly identical results are obtained using the growth rate in the nine month period before the election. Both p and g below are at annual rates.)

Predicted Democratic Share of the Two-Party Vote for 1988

Growth rate (g) \ Inflation rate (p)	0	1	2	3	4	5	6	7
-6	.550	.553	.557	.560	.564	.567	.570	.574
-5	.539	.543	.546	.550	.553	.557	.560	.564
-4	.529	.533	.536	.540	.543	.547	.550	.553
-3	.519	.522	.526	.529	.533	.536	.540	.543
-2	.509	.512	.516	.519	.523	.526	.530	.533
-1	.499	.502	.505	.509	.512	.516	.519	.523
0	.488	.492	.495	.499	.502	.506	.509	.513
1	.478	.482	.485	.488	.492	.495	.499	.502
2	.468	.471	.475	.478	.482	.485	.489	.492
3	.458	.461	.465	.468	.471	.475	.478	.482
4	.447	.451	.454	.458	.461	.465	.468	.472
5	.437	.441	.444	.448	.451	.454	.458	.461
6	.427	.430	.434	.437	.441	.444	.448	.451

If, for example, the inflation rate turns out to be 4.0 percent and the growth rate to be 2.0 percent, which is roughly what my model is predicting, the Democrats are predicted to get 48.2 percent of the vote, which implies a narrow Republican victory, or, better put, a very close election. Contrary to the 1984 election, where Reagan seemed a sure winner early on, the 1988 election is predicted to be much closer. (Any predicted value within 3 percentage points of 50 percent essentially means that the election is too close to call.)

Let us now come back to the question about pressure on the Fed. If, say, the Fed were pressured to have a monetary expansion that would lead to a per capita growth rate of 6 percent in the six month period before the election (with most of the inflation consequences to come after the election), the predicted vote above (for an inflation rate of 4 percent) would be 44.1 percent for the Democrats. This is a fairly comfortable Republican victory. Conversely, if Fed policy tightened to the point where the growth rate was, say, -5 percent, the predicted vote above (for an inflation rate of 4 percent) would be 55.3 percent, which is a fairly comfortable Democratic victory.

From my ivory tower at Yale, I have no idea what political machinations, if any, take place between the Administration and the Fed. The key point at present, however, is that there is really not time left between now and the election for the Fed to be able to do much about the economy even if it were put under pressure to do so. There are less than four months before the election, and there are lags in the effects of monetary actions on the economy. Without doing something really extreme, the Fed's policies between now and election time will have little effect on the p and g variables in the above table.

In short, the die is pretty much cast regarding the effects of policy on the economy between now and the election. Contrary to the case in 1984, where the chances of a Democratic victory were extremely small, the election in 1988 should be close. There is clear incentive for both parties to campaign hard to try to affect that part of voting behavior that is not influenced by the state of the economy. In the meantime, the Congress, the Administration, and the Fed should be looking ahead and worrying about the mix in 1989 and 1990.

The CHAIRMAN. Thank you.
Mr. Hale.

STATEMENT OF DAVID D. HALE, FIRST VICE PRESIDENT AND CHIEF ECONOMIST, KEMPER FINANCIAL SERVICES, INC

Mr. HALE. Thank you very much for the opportunity to testify.

I have organized my material this morning in terms of four major points.

First, I would concur with the previous speakers that the Federal Reserve faces a major challenge in the next couple of years inasmuch as we are now in an economic environment somewhat similar to the 1960's.

However, I would stress that in many ways the challenge facing the Fed over the next couple of years is even greater than it was in the late 1960's because it is now trying to conduct economic policy and monetary policy against a framework of two major imbalances, not simply domestic overheating.

First, as you know from previous discussion here, we currently have a very large imbalance between savings and investment in this country which has produced a current account deficit of $160 billion. That's not simply a record number in dollar terms; it's also a record share of our national income, a sum of money equal to 3.5 percent of our gross national product compared to 1.5 percent back in the 1870's and 1880's when we were a developing country.

As a result of this current account deficit and our external borrowing, we will also have by 1991–92 probably a trillion dollar external debt or foreign investment deficit which in turn will produce a deficit on our investment account of about $60 or $70 billion. So we're talking about a financial environment that is quite different from anything we've known in our modern history. In fact, Chairman Greenspan is the first American Federal Reserve Chairman to assume the office under conditions of the United States being a large capital-importing nation.

Second, in addition to this external financial constraint, we now have a growth rate in our real economy which is increasingly bumping up against real constraints in terms of labor supply and manufacturing capacity.

Let me share with you a couple of numbers to put in perspective what these constraints look like.

Once our economy achieves full employment—and many economists believe we're almost there—its optimal noninflationary growth rate consists of two factors—labor force growth and productivity growth. Labor force growth in this country is about 1.5 percent. Productivity growth is about 1 to 1.2 percent. As a result, our optimal noninflationary growth rate is now around 2.5 percent.

Because of the trade deficit, because of our need to move to a trade surplus at some point for debt servicing, we must also allocate some share of that 2.5 percent growth to reducing our trade imbalance. I would estimate at least 0.5 and perhaps 1 percent of GNP per annum must go for that purpose. That, in turn, leaves about 1.5 percent for domestic spending.

Since we also have to increase the size of our capital stock in order to generate additional capacity for exports, that means that

our domestic spending for consumption can only grow by about 1.2 or 1.3 percent, which would be about static in per capita terms.

That I think is a very significant challenge and my second major point is it would be a serious mistake if we have to rely solely on monetary policy to ration domestic demand, to ration domestic spending in a way that we keep in a noninflationary growth projectory over the next few years. I think the previous speakers have spoken aptly on this. Just to restate it very quickly, if we rely on monetary policy to restrain domestic demand, to stay in this noninflationary growth path, we will have to have much higher real interest rates. Higher interest rates will in turn push up the real exchange rate. That in turn will jeopardize improvement in our trade account and perhaps set the stage for a new current crisis in the future.

A year ago I would have thought that simply complying with the Gramm-Rudman program to gradually balance the budget would be sufficient. In fact, it may be necessary for us to study the economic policies of countries like Australia and Britain, which to deal with their trade imbalance and to maintain a low inflation rate, felt compelled to actually go to budget surpluses. Our policy alternative by 1991-92 may be to move in that direction more quickly than we would have thought necessary a year ago, especially with unemployment now likely to be at 4.5 percent by the end of 1988.

Third, the instruments through which the Fed should pursue this policy projectory must be eclectic. Again, previous speakers have commented quite adequately on the issue of velocity shifts, changes of money demand, and the unreliability of monetary aggregates. I would simply amplify this by encouraging you to also ask questions of Mr. Greenspan about how the changing value of the dollar and possible capital flight from the United States may affect money demand.

WEAKNESS OF THE DOLLAR

In my conversations with corporations and private investors, I suspect the weakness of the dollar over the last 1½ years has further weakened the relationship between money demand, money growth and nominal GNP, by encouraging our investors and our corporations to put additional money into foreign currency deposits. In other countries like Britain and Germany, it's easy for the central bank to monitor these changes in currency preferences because it's commonplace for banks in those countries to offer their citizens the option of having their money in foreign currencies in a retail savings account. We don't offer that option. Hence, money here typically goes offshore. But I suspect from looking at movements that in capital flows as measured by the B.T.S. data—I cover that in my formal testimony—that we have seen capital flight from the United States in the last year and it is distorting the money numbers and, therefore, is a factor which we must get a better handle on to understand the relationship between money and GNP. I would also concur with Alan Blinder that indexed bonds could be a useful market test of how the market is viewing inflation, monetary policy and the risk of future price changes.

EXCHANGE RATE POLICY

My final point would be to focus on exchange rate policy. I believe that we need additional guidance from the U.S. Treasury and Mr. Baker in particular on the conduct of exchange rate policy, how our exchange rate target zones are developed, and what implications they have for policy.

In the trade bill now before the Congress, we do have an amendment or a provision which would require the Treasury to provide regular testimony on the exchange rate. If you do not in the end pass the trade bill, I would encourage you to separate that provision to require additional testimony on exchange rate policy and its implications for our economy.

By convention and by custom, the exchange rate is the responsibility of the Treasury, not the central bank, but obviously conduct of exchange rate policy has major implications for the Federal Reserve and the economy in ways which mean we cannot really separate it from monetary policy.

In addition, I believe we also must have greater disclosure in the future of how this exchange rate policy is developed, how the target bands are developed, what kinds of surveillance indicators we use, what do we think are reasonable targets for our trade deficit, for capital flows, what do we think is an optimal adjustment path for policy to try to achieve an exchange rate target and a trade deficit adjustment.

I think we need this kind of additional information for three reasons. First, because simply focusing on the exchange rate would itself draw attention to these other policy imbalances we must confront. That is, the tension we'll have in the next year between fiscal policy and monetary policy. This is not a new subject or a new theme. It's been debated over the last 4 or 5 years, but absence of an exchange rate policy 7 and 8 years ago helped set the stage for many of our current problems. If we had had more awareness and more sophistication in this area, these imbalances would not have gotten as large, in my opinion.

Second, it's very important that we provide clear signals to American businessmen to keep investing very heavily in the tradable goods sector, especially manufacturing. We are currently experiencing a capital spending boom in manufacturing, but many businessmen still tell me they are concerned about future dollar appreciation, that there will be a repeat of what happened in the late 1970's and early 1980's of the dollar cycle which will in fact make the investment they are now undertaking unprofitable at some point.

If we had a more clearcut exchange rate policy and disclosure of how things are developed, it would help to reinforce today's current capital spending boom, which itself will lower the risk of future inflation.

Finally, I think we need additional discussion and disclosure about exchange rate policy to lessen the fear of political manipulation of exchange rates, to lessen concerns not of our own central bank in fact conducting policy in a way to affect our elections, but in fact of foreign central banks conducting policy in a way which might affect our financial markets or perceptions of the economy

and therefore how the electoral process here might evolve during a period such as 1988.

Now we can put various interpretations on the conduct of monetary policy in other countries over the last year. In my testimony I devoted a great deal of time to the issue of exchange rate intervention and how we have had exchange rate intervention over the last year to try and stabilize our financial markets, restrain the dollar from going too far, and preventing an upsurge in inflation and interest rates that would be destabilizing to our economy in 1988.

What concerns me here is not just the reality or what economists might think. It's what the American public might think in 6 or 9 months time if we have a very close election this autumn and it becomes apparent that in fact foreign economic policy was being conducted in ways to influence our election.

Here I call your attention to an editorial in last week's Financial Times, which addressed the dollar rally in the last couple of weeks as being in part a political phenomenon. I'll quote it directly:

> The result of the recent dollar appreciation was the export of inflation to the rest of the world. Both this week and last, Germany has demonstrated resistance. The spotlight now turns to Japan. The policy question in Tokyo: What price, in terms of domestic inflation, is the Japanese Government prepared to pay to help secure the election for Mr. George Bush?

That's the opinion of the Financial Times. There's great dissension obviously among financial economists. I think it's essential to our long-term economic and political relationships elsewhere in the world that we have ample description of exchange rate policy so that the American people do not believe that we've had manipulation of the exchange rates, such beliefs would be adverse for the maintenance of an effective exchange rate policy and also for our strategic relationship with countries like Japan such relationships will be critical, I would add, not only to our trade adjustment process but to maintaining world peace and prosperity well into the 1990's.

Thank you.

[The complete prepared statement of Mr. Hale follows:]

TESTIMONY ON U.S. ECONOMIC OUTLOOK AND MONETARY POLICY

Testimony for

Hearings before the
Committee on Banking, Housing, And Urban Affairs

UNITED STATES SENATE

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on

Oversight on the Monetary Policy Report to Congress
Pursuant to the Full Employment and Balanced Growth Act of 1978

July 12, 1988

David D. Hale
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Mr. Chairman, thank you for this opportunity to address your committee on the conduct of monetary policy, as part of your semi-annual review of the Humphrey-Hawkins Testimony of Federal Reserve Chairman Alan Greenspan.

The challenge now facing the Federal Reserve, as well other national policy-makers, is unprecedented in the modern history of the United States. Not only must the Federal Reserve pursue a policy which aims to achieve steady economic growth with stable prices. Dr. Alan Greenspan is also the first chairman of the Federal Reserve to assume the office at a time when our country is a large importer of capital. While there is nothing wrong with importing foreign capital if we invest it wisely, the nation's dependence upon foreign savings has greatly altered the character of the American financial markets and imposed constraints on the conduct of monetary policy unknown to most of his predecessors. As a result of America's need for external savings, the Federal Reserve must now be more sensitive than ever before to such issues as foreign investor confidence, the appropriate level of the dollar exchange rate, and co-ordination of interest rate policy with other countries.

A few numbers put in perspective the historic nature of this challenge. In 1987, the U.S. imported nearly $160 billion of foreign capital. That sum is not merely a record number in dollar terms. It is also equal to 3.5% of GNP compared to a previous high of 1.5% of GNP during the late 19th century when the U.S. was importing capital from Britain to build the western railways. In fact, at current rates of borrowing, President Reagan and his successor will probably take the country on a one hundred year round trip in terms of its external financial status. By 1993, this country is likely to have an external debt equal to 1.0 - 1.2 trillion dollars or 20% of GNP, which would approximate the size of the country's external debt in 1893, when Grover Cleveland was President. I stress this historical comparison because the American financial environment today has a very 19th century flavor about it; both our stock market and bond market are now heavily influenced by investor perceptions of the outlook for the dollar, foreign interest rates, and international capital flows. Indeed, the best historical precedents for understanding the 1987 stock market crash were not the crashes of 1929 and 1962, which generated so many media comparisons, but the bear markets of the 1870's and 1890's. As with the 1987 crash, those bear markets resulted from investor anxiety about the value of the dollar, interest rate differentials between New York and other financial centers, and the influence of foreign creditor powers (in those days Britain) over the American economy. There are, of course, major differences between that period and today. In the 1890's, the U.S. accounted for less than 15% of the industrial world's GNP compared to over 30% today. Before 1914, the U.S. also had no central bank, so our monetary policy was effectively a by-product of the international gold standard and the monetary policies of the Bank of England. But as the events of last October demonstrated, the country's need for external savings, as well as the growing mobility of capital in the world economy, has created a financial environment which often has more in common with the world we knew in 1888 than the world we knew in 1978 or 1968. In fact, many American investors now pay nearly as much attention to the comments of central bank chairman from Japan and Germany as those of Dr. Greenspan's because of a belief that any policy adjustment in those countries will have an immediate ripple effect on global capital flows and interest rates in the United States itself.

The Balance of Payments Adjustment Will Be Gradual

Because the nation will probably have an external debt approximating 20% of GNP by the early 1990's, the U.S. will have to return to trade surplus at some point during the 1990's in order to generate export income for debt servicing. The most important questions now confronting our policy makers center on how the country will shift 4-5% of its GNP from domestic consumption to net exports in order to achieve a trade surplus by the mid-1990's. What is the optimal non-inflationary growth rate for U.S. output and what share of that output should be diverted each year to reducing the trade deficit? What is the optimal policy mix for reallocating resources from domestic consumption to exports and manufacturing capital investment? What is the appropriate level of the dollar exchange rate for encouraging steady improvement in the trade deficit without triggering a resurgence of domestic inflation?

If the U.S. were a small or medium sized country, it would be easy to answer these questions. The sheer size of the U.S. trade deficit would have already produced a severe foreign exchange crisis, forcing us to impose austerity policies and correct the external deficit through a recession in domestic consumption. Rather than enjoying the sixth year of a business expansion, 1988 would probably be a year of high interest rates, tax increases, consumer anguish, and depression in the construction industry. But we have been spared such hardship because the U.S. is not a small country. It is still the largest economic power on this planet and many other countries depend upon us for military security. As a result, other countries have been prepared to come to our aid during the past two years with substantial official funding for the external deficit. In 1987, foreign central banks engaged in $140-150 billion of foreign exchange market intervention in order to prop up the U.S. dollar and restrain upward pressure on American interest rates. Japan, alone, appears to have purchased nearly $40 billion of U.S. securities while Taiwan probably purchased about $20 billion of dollar securities. Foreign central banks also intervened to support the dollar during January after some indiscreet comments by White House officials about the dollar's future value, and during April after the publication of disappointing U.S. trade statistics for February. In addition, the Japanese Ministry of Finance has tried to calm the U.S. financial markets on several occassions during the past year by using moral suasion over Tokyo financial institutions to discourage private sales of dollar financial assets.

Why have Europe and Japan been so supportive of the dollar? They have had several motives. First, in contrast to the U.S. during the period 1982-1984, they do not want their currencies to appreciate so sharply as to severely damage their export competitiveness. Secondly, they do not want the U.S. to experience an election year financial crisis which could encourage the American people to support political candidates favoring protectionism, economic nationalism, and unilateral withdrawal of American military forces from Europe and Asia. The Japanese government, in particular, feels it is essential to prop up the U.S. economy because of Japan's heavy dependence upon this country for both markets and military security. In fact, at a recent conference in Nagoya, Japan about how Japan should cope with American economic decline, one former deputy finance minister said "After one hundred years of Pax Britannica and fifty years of Pax Americana, we have now entered a period which will be known as Pax Consortia in which Japan will help to support America's international role."

The past eighteen months is not the first time that America has received official assistance in funding an external deficit. In the final years of the Bretton Woods fixed exchange rate system, the U.S. developed an "offset program" with Germany in order to help cover the cost of maintaining large military American forces in that country. Under the "offset" program, the Bundesbank agreed to stop converting dollars into gold and to purchase a tranche of U.S. Treasury bonds paying below market interest rates. Germany also agreed to pay the cost of improving certain U.S. military bases as well as to purchase more American military equipment. Ironically, these experiments in "burden sharing" were abandoned after 1971 because of America's decision to resolve her balance of payments problem through devaluation and floating exchange rates. But in view of America's large external deficit today, it is quite likely that the G-7 experiment with exchange rate management will evolve into a new form of "offset program", in which central bank intervention will occassionally substitute for more explicit transfer mechanisms to compensate the U.S. for its international military role.

In addition to central bank assistance, the U.S. can take longer to correct its external payments deficit than a small country because of the size and liquidity of our domestic asset markets as well as the structural nature of the savings surpluses which exist in other countries today. While the U.S. was very dependant upon central bank intervention in financing its payments deficit last year because of investor flight from our bond market, there was also a large rise in foreign direct investment and equity purchases. In fact, the official figures suggest forsign equity investment was equal to 1.5% of GNP or the highest level in the modern history of the United States. In 1988, foreign direct investment still appears to be running at 1% of GNP while foreign firms announced nearly $40 billion of takeover bids for American companies during the first three months of the year. Although many Americans are naturally concerned about the sale of national assets at bargain basement exchange rates to foreign investors, the fact is we can finance a more gradual adjustment in our level of consumption than smaller countries simply because we have many attractive assets to sell.

Another factor which is helping the U.S. to stretch out its balance of payments adjustment process is the structural nature of the savings surpluses which now exist in central Europe and Japan. The most common explanation for today's global payment imbalances is that America has a large budget deficit while Europe and Japan do not. What is less well understood is that some of today's global payment imbalances have resulted from divergences in demography, not just discretionary fiscal policy. In Germany, the birthrate has dropped to such low levels that the country's population is now falling by 3,000-4,000 per week. Unless there is a major change in birthrates or immigration, the German population will shrink from 62 million to 50 million by the year 2020 and to only 40 million by 2040. In Europe as a whole, birthrates were so low last year that 20% of all European births excluding Russia were in Poland, which has only 35 million people. Japan's population is still static but due to a low birthrate it also is aging rapidly and will start to shrink during the early years of the next century.

While the U.S. population is aging, the country has a higher birthrate and therefore greater labor force growth than Europe or Japan. Excluding South Africa and Hong Kong, the U.S. is also the only industrial nation to have a common land frontier with the third world. As a result, it is far more likely that the U.S. will attract a large immigrant population during the next few decades than either Europe or Japan. As with Hong Kong, the U.S. will probably also experience a great deal of

industrial development in areas directly adjacent to its border. While population is only one factor of production, large divergences in demographic behavior can influence the direction of capital flows in a variety of ways. An aging population will tend to increase its savings rate in order to establish retirement funds while a society with a young population will generate robust credit demand to finance homebuilding and consumer durable purchases. Germany's residential construction industry, for example, has remained depressed in the face of falling interest rates for several quarters because of population decline. In previous periods of history, countries with aging populations would probably have had stagnant economies and low real interest rates. But because of the international movement towards financial liberalization, coupled with new developments in computer and communications technology, we now have a global financial marketplace through which countries with aging populations can export capital to countries with younger populations.

One could argue that the U.S. is importing too much capital relative to its low investment rate and that more of it should be diverted to countries with even younger populations in the third world. But a variety of structural factors, including pro-capitalist economic policies and market openess, have caused the world's high savers to concentrate their surplus funds in American assets during the 1980's.

The Policy Challenge

While there are several structural reasons why the U.S. can stretch out its balance of payments adjustment process and remain a capital importer well into the 1990's, the transformation now occurring in the U.S. balance of payments will still pose a major challenge to policy makers both here and overseas. The U.S. will have to return to trade surplus at some point in order to offset the growth of interest payments and dividends on our external debt and foreign investment here. This, in turn, will require the U.S. to develop a coherent mix of fiscal and monetary policies for reallocating 4-5% of GNP from domestic consumption to exports and investment.

The arithmetic of this challenge is likely to work as follows. Once a country achieves full employment, its optimal non-inflationary growth rate consists of two factors -- labor force growth and productivity growth. With the U.S. labor force growing by 1.5% per annum and productivity expanding by 1.2% per annum, the economy's optimal non-inflationary real growth rate is 2.5 - 2.7%. If we assume that the U.S. will have to reduce its real trade deficit by an amount equal to 0.5 - 1.0% of real GNP per annum over the next several years in order to achieve a trade surplus for debt servicing by the mid-1990's, domestic spending will be able to expand by only 1.5 - 2.0% per annum. Since the investment share of GNP also will have to expand in order to reverse the damage done to the U.S. capital stock by the exchange rate policies of Donald Regan and Beryl Sprinkel during the early 1980's, American consumption will probably have to remain static on a per capita basis for an extended period of time unless the shift in the economy's growth mix towards export and investment gives a significant boost to productivity itself.

It is essential that the U.S. pursue a policy mix which does not discourage capital spending and savings because the overvaluation of the dollar between 1981 and 1986 retarded investment in the economy's tradeable goods industries. As the Charts illustrate, investment in commercial real estate and domestic service industries rose to record levels as a share of GNP after 1982 while many sectors of manufacturing industry suffered from investment anorexia. Indeed, the manufacturing capital stock of the U.S. actually shrank in 1982-83 for the first time in the post-

war period. The U.S. will be able to increase its living standards while reducing the trade deficit only if the capital stock expands rapidly enough to improve productivity.

Some analysts are hopeful that the need for significant fiscal policy changes will be alleviated by growth of the social security trust fund. While expansion of the trust fund surplus is projected to reduce the federal government's borrowing requirement from a potential $231 billion to $135 billion by 1993, relying on the trust fund to offset further growth of the current services deficit will simply store up trouble for the next century, when the baby boomers retire. Moreover, it is essential to the world economy that the U.S. return to fiscal balance autonomously from the social security trust fund because the savings rates of Europe and Japan will fall sharply during the late 1990's, as more of their populations start to retire. Without higher savings rates in the U.S. to offset lower savings rates in other countries, there will be less capital available to finance investment and real interest rates could rise sharply on a global basis.

The major domestic policy question facing the financial markets today is whether domestic demand will be rationed by fiscal policy, monetary policy or rising inflation. As Table 2 illustrates, we are now at a stage of the business cycle in which the federal budget has often moved into surplus and should be in surplus in order to restain inflation pressures resulting from full resource utilization. Unfortunately, though, the current period is the first time in our modern history that we have a federal budget deficit still averaging 3.5% of GNP as the economy approaches full employment.

Large budget deficits were not a serious threat to financial stability a few years ago because both the national economy and the world economy had ample underutilized resources and excess savings. But a large budget deficit poses significant inflationary risks when a country is attempting to reduce a trade deficit equal to 4% of GNP (twice the output lost in the average post-war recession) with an economy already close to full resource utilization. If our large external deficits had been financing robust growth in the manufacturing capital stock during the mid-1980's, we would not have to constrain domestic demand in order to free up resources for reducing the trade deficit but, unfortunately, as charts 4-6 illustrate, the policy mix which we pursued during the early 1980's caused a contraction in the size of America's manufacturing capital stock and many industries, including chemicals, steel and paper, are now operating at such high utilization rates that large price increases are occurring for crude and intermediate goods. History would suggest that the price increases now occurring in the industrial sector, coupled with the upward pressure now apparent on wages, will push the total inflation rate into the 5.0 - 5.5% range by early 1989 unless we experience a benign exogenous price shock, such as a drop in world oil prices.

Since we are trying to restrain domestic demand while shifting resources from domestic consumption to exports and manufacturing capital investment, the optimal way to restrain domestic demand under current circumstances would be a program of fiscal restraint heavily oriented towards consumption taxes, not rising interest rates. Such a package would free up resources for reducing the trade deficit without jeopardizing the capital spending boom now in progress throughout much of our manufacturing sector.

Congress took some tentative steps towards deficit reduction in the weeks after the October stock market crash but was inhibited from going further by fears of triggering a recession. As the robust performance of the American economy will now

testify, though, the major threat facing the U.S. economy during 1988 is not recession but inflationary overheating. Despite the recession myopia of Wall Street during the winter of 1987-1988, it should now be obvious that it is difficult to organize a recession in a country with an undervalued exchange rate unless fiscal and monetary policy are moving in a restrictive direction. Although technological failure was the major cause of last year's stock market crash, the economic explanation for investor panic was a fear that the U.S. would attempt to resolve its domestic savings shortage not through fiscal restraint but through rising inflation and interest rates. Because of computerized trading actvity and a breakdown of cash-futures arbitrage, these fears triggered a high speed discounting process which culminated in a stock market crash rather than a bond market crash. But most Wall Street analysts would now admit that in the abscence of Black Monday's events there would have been a sharp upward spike in American interest rates during the winter of 1987-1988 followed by a traditional slow motion correction in equity values. Black Monday affected the timing of the U.S. adjustment process, not its direction or ultimate policy implications.

Fortunately, the sharp devalaution of the dollar has triggered an export and capital investment boom, which has helped the economy beyond Manhattan to shrugg off the equity market crash, but the risk is not insignificant that we will experience renewed financial turmoil if the Federal Reserve continues to be the only agent in Washington capable of restraining domestic demand. As unemployment drops further and utilization rates climb higher, concern will increase about inflationary overheating, bond yields will rise, and ultimately force the Fed to respond by permitting higher short-term interest rates. The threat of a monetary rather than a fiscal solution to the nation's savings imbalances could then produce another slide in equity prices. While the 1987 stock market crash did not dampen the animal spirits of America's businessmen, a succession of financial crises, coupled with a prolonged period of volatile stalemate in public policy, could ultimately crimp investment and cause the economy to drift into a period of self-perpetuating stagnation. As with the British stop-go cycle of the 1950's and 1960's, volatility in the real economy would be less dramatic than in the financial markets, but American living standards would be constrained by low investment, weak productivity, and diversion of personal savings to financing government deficits as economic stagnation curtailed tax revenues and expanded transfer payment programs.

Such an outcome would be tragic because the U.S. economy still has many potentially positive growth features. In contrast to Europe and Japan, our population is expanding. The supply side of the American economy is also highly flexible compared to other industrial nations. Despite the sharp drop in unemployment, the acceleration in wages so far this year has been modest. American businessmen retain the confidence to invest and will expand their capital expenditures by 10-12% this year. Meanwhile, non-farm exports will probably expand by 20% during 1988. In fact, the sheer size of the trade deficit is itself an argument against recession if we can develop policies which make it possible for us to attract external savings at reasonable levels of interest rates. In 1987, the trade deficit was equal to just under 4% of GNP or twice the output lost in the average post-war recession. Hence, simply eliminating the trade deficit could add about 10 points to the industrial production index and permit us to enjoy modest output growth with full employment while reducing the federal deficit.

What role can monetary policy play in the adjustment process? Ideally, it will play a fine tuning role designed to achieve 6-7% nominal GNP in which real output expands by 2.5% per annum and inflation remain in a range of 3.5 - 4.5%. In the long-term, we should strive for an even lower inflation rate but that will probably not be

possible in 1989 because of cyclical price pressures resulting from full resource utilization. Moreover, any attempt to push inflation significantly lower through monetary restraint would probably set the stage for a recession, which would significantly expand the federal budget deficit as well as the liabilities of the federal government's deposit insurance funds. As Jeff Sachs explained to you in February, it is not uncommon for new presidents to pursue restrictive policies in their first year, but in 1989 recession is not really a viable policy option unless there are far worse inflation shocks ahead than currently seem probable. All policy actions require acceptance of certain tradeoffs, and the negative tradeoffs from a 1989 recession would greatly exceed the positive ones.

There is considerable disagreement among economists about the instruments which the Fed should use to conduct monetary policy. The volatility of money velocity during the past few years suggests that the Federal Reserve will have to be agnostic about policy instruments while remaining explicit about its policy objectives through a clearly stated nominal GNP growth trajectory. As the forecasting errors of the Reagan administration itself during 1988 will testify, there is no longer a sufficiently stable relationship between money supply and nominal GNP for the Fed to adhere to a precise monetary target. Instead the Fed should monitor a basket of indicators, including money and credit growth, the shape of the yield curve, the exchange rate, commodity prices, wages, and other aspects of public policy which might directly influence prices, such as the minimum wage law. Ironically, administration spokesman of the monetarist persuasion may have contributed to the slowdown in American monetary growth during the past year by making speeches which encouraged investors to sell dollars. While we have only fragmentary data about the currency balances of American residents, data compiled by the Bank of International Settlements showing the distribution of currency balances owned by non-banks in the offshore financial system suggests that there has been capital flight from U.S. dollar instruments since 1985. At the end of 1987, the ratio of dollar deposits owned by non-banks to other Eurocurrency deposits was only 2.0 compared to 6.0 in 1984. The decline in the dollar share of international bank deposits has been so sharp that some of the weakness in American monetary growth may also reflect capital flight by U.S. residents from our domestic monetary aggregates. Because banks in foreign countries typically offer their retail customers access to multi-currency deposits, central banks are able to collect data on their residents' currency preferences. In fact, such data is included in both the German and British definitions of M3. Since U.S. banks do not offer such deposit services to retail customers, it is difficult for the Fed to monitor changes in currency preferences and their possible impact on our money supply. But capital flight could easily distort our monetary statistics, just as it has in other countries. If, for example, investors believe that U.S. monetary policy is too inflationary, there could be a shift of funds out of the U.S., which would depress the growth rate of the official monetary aggregates despite the Fed's effort to stimulate money growth. While one can only infer from the BIS data that there has been capital flight from the dollar, it is difficult to belive that Treasury departments in large corporations as well as wealthy individuals have not been minimizing their exposure to dollar deposits because of concern about the value of the currency during the past eighteen months. Indeed, as chart 15 illustrates, the slowdown in U.S. money growth during the past eighteen months has been matched by an upsurge of foreign money growth partly because of these shifts in portfolio preferences among investors.

Exchange Rate Target Zones

Many commentators have suggested that the U.S. should use the exchange rate as a policy target. While the exchange rate should certainly be an important policy consideration for the Federal Reserve, the emphasis should be on managing exchange rates during the next few years rather than fixing them. It would be premature to return to fixed exchange rates at this point because no one has a clear idea as to what level of exchange rates will be needed to bring the U.S. current account back into line with the supply of foreign capital available for investment in this country. Most econometric models suggest that the dollar will have to fall by at least 10-15% more in real terms over the next three years and by perhaps 25-30% in nominal terms (to compensate for inflation differentials) in order to produce a U.S. trade surplus by 1992-1993. In recent weeks, the dollar has rallied because of investor perceptions that U.S. financial assets offer attractive returns relative to those in other countries, but it is far from clear how sustained this trend will be. There have been significant capital outflows from Germany to several high yield foreign bond markets this year (Denmark, Australia, Canada, France, and the U.S.) because of the government's decision to impose a withholding tax on domestic financial instruments. The Japanese banking system also has been experiencing disintermediation because of a decision to impose withholding taxes on retail savings accounts. While these outflows from Germany and Japan may continue to bolster our financial markets during the next few months, they could also return home if interest rates in those countries rise further or the U.S. publishes new trade data which calls into question the future value of the dollar.

While it would be premature for the Treasury and the Federal Reserve to formally peg exchange rates at current levels, there are many good arguments for establishing exchange rate target zones to guide economic policy in the future.

First, we need to firmly establish the importance of real exchange rates as a target for domestic economic policy. In contrast to the early 1980's, U.S. policy makers must send clear signals to both financial investors and manufacturing companies that the country is committed to exchange rate targets which will encourage trade competitiveness and efficient resource allocation. Such a policy committment is not only important for achieving a long-term balance of payments equilibrium; it also could play an important role in restraining inflation during 1989 and 1990. With the U.S. running out of surplus labor and industrial capacity, there is a danger that further rapid dollar depreciation could produce an upsurge of inflation which would cause the real exchange rate to appreciate. Such inflation could erode the gains in competitiveness resulting from devaluation and thus prevent further trade adjustment after 1988.

Second, the U.S. needs some form of exchange rate target because of its large external financing requirement. While devaluation fears will not inhibit foreign direct investment or certain equity purchases, it will discourage foreign investors from purchasing U.S. bonds unless there is a large risk premium incorporated into U.S. bond yields. Since debt sales will be an important component of the U.S. capital inflow for some time, devaluation is not the totally "free lunch" many people think it is.

Thirdly, the development of real exchange rate targets could help to cool the upsurge of economic nationalism now occurring in the United States. The instability of the dollar during the 1980's played a major role in encouraging political xenophobia about trade and investment questions. The over-valuation of the dollar after 1982 reduced U.S. competitiveness and drove a great deal of manufacturing

output overseas. Now the collapse of the dollar has turned the U.S. into a bargain basement, permitting foreign companies to go on a shopping spree with the large profits they earned from selling exports here during the first half of the 1980's.

It is often argued that exchange rate stability is inconsistent with free markets and capital mobility, but the 19th century gold standard helped to create a world in which capital was mobile, trade was not heavily restricted, and there was a common global price level linking together both goods markets and asset markets. The gold standard was abandoned because of two major defects. First, there was no active central bank supervising the world financial system during the 19th century, so an absence of gold discoveries encouraged commodity deflation when new technology caused large increases in output. Secondly, because the gold standard imposed an effective fixed exchange rate system on the world economy, countries had to allow flexibility in their domestic prices in order to maintain symetry with external prices. In commodity producing countries such as the United States, the gold standard was highly unpopular during the 19th century because price flexibility meant deflation and default in many agricultural regions. The lesson of the gold standard, though, is not that free movement of both goods and capital is incompatible. Rather, it is that the only way to resolve tensions over trade and investment policy in an age of world financial integration may be to encourage greater global convergence in the prices of tradeable goods and assets through monetary co-operation centering on exchange rate targets. In fact, one could argue that global financial integration is now proceeding so rapidly that today's efforts at managing exchange rates should be only the first step towards the creation of a trans-national central bank which would eventually provide a common currency and debt market for the major industrial nations. While the idea of a trans-national central bank is still in the realm of economic science fiction, the fact is there will have to be major institutional reforms during the next few decades not only to maintain harmony between goods markets and capital markets but also to integrate domestic political marketplaces which are parochial in orientation with financial markets which are global in operation.

If the U.S. had been using real exchange rate targets during the early 1980's, it is easy to imagine how U.S. macro-economic policy might have corrected its imbalances more quickly. The Reagan fiscal deficits were funded though a sharp appreciation of both the nominal and real exchange rate, which created a large U.S. trade deficit and surplus savings in other countries that flowed back to the U.S. in the form of asset purchases and bond financing. If the U.S. had attempted to restrain the dollar's nominal appreciation, the fiscal deficits would have generated a rise in the real exchange rate and large trade deficits through higher domestic inflation. While one could argue that the balance of payments consequences would have been similar, a rise in the real exchange rate through higher inflation would have generated public alarm about the dangers posed by large budget deficits far more quickly than the appreciation of the nominal exchange rate did. In fact, the appreciation of the nominal exchange was actually very popular during the mid-1980's because it helped to boost consumer incomes by restraining inflation through a profit squeeze in the country's tradeble goods industries. As with exchange rate overvaluation funded by external borrowing in Nigeria, Brazil, and Argentina during the early 1980's, the appreciation of the dollar during the first half of the decade generated a gigantic income transfer from producers to consumers which boosted living standards in the short-term but at the cost of distorted investment patterns and unwieldly trade deficts later.

Finally, a more managed exchange rate system could evolve into a global "public good" by increasing the international awareness and sophistication of American policy makers. There is no theoretical reason why American governments could not pursue coherrent international economic policies without exchange rate targets, but recent U.S. history suggests that this country's policy process needs more checks and balances than are available strictly from domestic institutions and pressure groups. New U.S. administrations often come into office with little appreciation for policy decisions which preceded their arrival. In a society as democratic as America's, the recruitment process for important political appointees must, by definition, follow a random walk in terms of intellectual competence. In other industrial countries, inexperienced or irresponsible political operatives would be restrained by senior civil servants, but, unfortunately, in the case of the United States, the quality of the permanent civil service has been damaged by both erosion in real compensation relative to the private sector and a decline in public respect for people employed in government service because of the neo-conservative intellectual revolution which swept the western world at the end of the 1970's. Although every government is entitled to make its share of mistakes, the deterioration in the conduct of the U.S. Treasury's international economic policy under the leadership of Donald Regan was so unprecedented for an industrial country in the modern era that it suggests systemic reform is necessary. Managed exchange rates could be a way to institutionalize greater international competence in the American government.

The rise of Japanese financial supremacy and the economic decline of the United States during the period of University of Chicago ascendancy in economic policy is already setting the stage for an intellectual counter-revolution which is likely to include a managed exchange rate system during the 1990's. The challenge during the interim will be to control the speed at which the American economy moves from a large trade deficit for financing the Reagan consumption boom to an eventual trade surplus for servicing his debt legacy. Except for the period of dollar supremacy after 1945, the American people have often been uncomfortable with managed exchange rate systems because of fears that they would force this country to import deflationary policies from foreign creditor powers. In the 19th century, one of the major economic divides in American politics was the split between east coast conservatives who favored maintaining monetary links to Britain via the gold standard and western populists who favored an autonomous domestic monetary system based on bi-metallism. In 1933, Franklin Roosevelt torpedoed efforts to stabilize exchange rates in order to raise domestic prices and make a clear break with Herbert Hoover's international economic policies. Hoover had countenanced a large hike in U.S. interest rates during 1931 in order to stabilize the dollar after heavy selling by French investors. Despite America's historical aversion to exchange rate management, though, the major risk facing the U.S. at the end of the 1980's is not that Europe or Japan will impose an IMF austerity program on the U.S.; it is that the financial marketplace itself will drive the U.S. into recession through violent upheavals in financial asset prices because multilateral solutions to the U.S. deficit problem fail. While the large size of the American economy still gives the U.S. more coercive power than any other country in the system, last October's events demonstrated the potential risks posed by unilateralist actions misfiring. Indeed, as a result of Washington's diminishing capacity for low cost independent action, one could argue that the development of new institutions for encouraging international economic co-operation will do more to sustain American hegemony than a policy which discourages such co-operation.

In the trade bill which was vetoed by President Reagan a few weeks ago, there was a provision which would have required the Secretary of the Treasury to testify on a

regular basis about the dollar exchange rate and its potential implications for our trade performance. If the trade bill is not enacted into law, the Congress should still enact the provision requiring the Treasury to submit regular testimony about exchange rate policy and its implications for our industrial performance.

It may also be an appropriate time to request the Treasury to provide more public disclosure about its efforts to manage the exchange rate. What are the target zones? What economic criteria were used to determine them? How compatible are the exchange rate target zones with the major components of U.S. economic policy including fiscal policy, monetary policy, regulatory policy, and so on? The Treasury has been reluctant to provide such information in the past because it was uncertain what level of interest rates and budget deficits would be consistent with commercially realistic exchange rate target zones. Needless to say, the administration also did not want to commit itself to exchange rate targets which might be difficult to defend during an election year. But as the recent dollar rally will testify, we appear to have reached exchange rate levels which may be defensible with only modest policy adjustment. If that is the case, the early months of the next president's term could be an opportune moment to move from secret currency target zones to a more explicit system of exchange rate management comparable to the EMS. What would be the advantage of public target zones as opposed to secret currency agreements? There would be two major benefits.

First, it would increase the conviction among businessmen both here and overseas that the Regan-Sprinkel policy of using exchange rate appreciation to market American debt to foreign investors was a historical aberration which will not be repeated in the future. A clear commitment by the U.S. government to insuring that it is sensitive to the real exchange rate and trade competitiveness would help to encourage more efficient resource allocation not only in this country but in the whole world economy. While the large size of the U.S. trade deficit should help to guarantee that the dollar remains competitive during the late 1980's without target zones, the fact is we cannot rule out a post-election policy mix, in which fiscal policy remains trapped in gridlock, interest rates rise, and the dollar appreciates in real terms to sustain a large trade deficit and capital flows to the U.S. If the Treasury were forced to formally acknowlege that such a policy mix would adversely affect U.S. competitiveness, it might lessen the odds of the gridlock in federal fiscal policy continuing.

Secondly, more public disclosure of how exchange rate policy is formulated could help to lessen the danger of the American people believing that exchange rates might be manipulated for political purposes. For example, it has now been disclosed in a new book by Mr. Yoichi Funabashi (Institute for International Economics) that Treasury Secretary James Baker actively co-operated with Prime Minister Nakasone in managing the yen/dollar rate during 1986 in order to encourage Mr. Nakasone's re-election. In view of that deal and the magnitude of America's current external funding requirements, it would not be difficult for many Americans, especially in the Democratic Party, to suspect that Mr. Baker has sought help from the Japanese to prop up the dollar in order to improve Vice President George Bush's election prospects. Although no one is yet calling George Bush the Manchurian candidate of 1988, he has been the effective beneficiary of the effort by central banks in Japan, Taiwan, and elsewhere to restrain our inflation and interest rates though exchange market intervention.

Because America's relations with Japan are so critical both to our prosperity and global economic stability, it would be highly dangerous to permit the exchange rate management process to evolve in ways which might create suspicions among the

American people that foreign central banks had purposefully adjusted their policies in order to help determine the outcome of a presidential election. For instance, Business Week devoted its fourth of July edition to a major story about Japan's growing Washington prescence, especially its heavy spending on lobbyists, fees to politically connected law firms and subsidies to academic researchers prominent in the debate about trade policy. If journalists in a respected financial publication can raise questions about the integrity of our lobbying process and academic research because of heavy foreign subsidies, imagine the popular reaction in the U.S. during 1989 if it becomes apparent that foreign central banks had decided to stabilize the dollar and restrain U.S. interest rates only through our presidential election. Not only might there be a strong political reaction against the idea of international economic co-operation. The new President would find himself without a mandate to pursue effective deficit reduction policies precisely because central banks had helped to tranquilize our financial markets during the period when the public should have been confronted with serious discussion of the potentially painful policy choices which lie ahead.

Although it may seem hard to believe today, during America's previous incarnation as a debtor nation in the 19th century, there was intense hostility to British financial power because populist politicians persuaded millions of Americans that the Bank of England had bribed the U.S. Congress into pegging the dollar to the gold standard in order to produce large profits for foreign bondholders. In 1896, William Jenning Bryan won the Democratic presidential nomination with a spellbinding oration denouncing British monetary policy and the "financial servitude to London" resulting from the gold standard. If 1988's boom is followed by a devaluation induced bust during 1989, the editorial writers of 1990 could be arguing that the making of the President in 1988 was not determined by the regular electoral process but by Mr. Bush's unreported successes in the "G-7 caucases" or a secret "Tokyo Primary".

We should not be indignant that other nations want to influence American policy. Because of the interdependence which now exists between the U.S., Europe, and Japan, there is no longer any precise way of saying where one nation's self interest ends and another's begins. Asia needs American markets, the U.S. needs Asian savings, and Europe needs the military protection which is made possible by American prosperity. The problem is that technology has transformed the world's financial markets into a fully integrated 21st century electronic village while most political institutions continue to function within the emotional parameters of the 18th century nation state. There is no simple way to narrow the gap between the financial and political marketplaces, but a managed exchange rate system with ample disclosure of how target zones are determined would be an important first step. In the case of the United States, it also would help to lessen the dangerous illusions of autonomy cherished by domestic policy making agencies, such as the Treasury and the Federal Reserve. Management of the exchange rate is by convention a responsibility of the Treasury, but since the exchange rate has important implications for monetary policy any attempt to adhere to target zones would require more systematic co-ordination of domestic fiscal and monetary policy than we have experienced during recent years. Such a challenge may sound formidable for a political process in which the separation of powers makes the development of fiscal policy, alone, cumbersome, but there is no alternative to improved harmonization of the different components of American economic policy if this country is to complete its balance of payments adjustment without a resurgence of inflation culminating in a monetary crunch during 1989 and recession by 1990.

7/1/89

Real Business Cycle Growth Rates

Compound annual rates over specified periods

			During Expansions						
	1950-88:1	1970-88:1	54:2-57:3	58:2-60:2	61:1-69:4	70:4-73:4	75:1-80:1	80:3-81:3	82:4-88:1
GNP	3.3	2.7	3.4	4.9	4.3	4.6	4.1	3.3	4.2
Final Sales	3.3	2.7	3.1	4.2	4.2	3.9	3.9	1.3	3.5
Domestic Final Sales	3.4	2.8	2.9	4.1	4.4	3.7	3.8	2.3	4.2
less Federal Spending	3.4	3.0	4.1	4.9	4.6	4.7	4.0	2.0	4.4
Consumption	3.4	3.0	3.9	4.4	4.4	4.1	3.7	1.8	3.8
Durables	4.3	5.0	4.2	8.1	7.1	11.4	6.1	5.3	8.1
Nondurables	2.5	1.9	3.8	3.4	3.4	2.1	2.9	0.6	2.3
Services	3.9	3.4	4.0	4.7	4.8	4.0	3.9	1.8	3.7
Business Fixed Investment	4.0	3.4	5.7	6.3	6.6	7.9	6.9	8.7	6.4
Equipment	4.8	4.8	6.7	9.6	8.4	11.3	7.4	5.4	10.4
Structures	2.5	0.7	4.6	2.8	4.5	3.0	5.9	14.6	-1.5
Residential Fixed Investment	2.3	3.2	0.3	10.4	1.9	8.5	7.7	-3.6	10.1
Single Family		4.6		8.6	-0.2	7.7	7.0	-1.1	14.6
Multi-family		-1.7		7.9	12.2	13.9	6.1	4.0	2.8
Exports	5.8	5.7	8.9	9.0	6.2	12.6	8.9	2.0	6.9
Non-ag		5.9				11.5	6.9	-1.9	11.1
Non-merchandise	6.1	5.6	10.7	5.6	7.0	14.8	12.1	10.4	2.0
Imports	6.8	6.1	6.8	6.1	8.9	9.4	7.9	12.7	12.4
Non-oil		7.3				6.2	9.4	14.6	15.4
Non-merchandise	6.3	4.8	7.0	-1.8	6.2	-1.3	8.5	20.1	9.6
State & Local Govt. Spending	3.7	2.2	5.7	4.0	5.0	3.1	1.3	-1.4	3.5
Federal Govt. Spending	2.8	0.8	-3.0	-0.8	2.8	-4.9	1.5	5.8	2.1
Defense							0.9	5.3	5.3
Non-defense							2.8	7.1	-7.4
Industrial Production	4.1	3.0	6.2	9.7	6.6	7.5	5.9	5.9	5.7
GNP Deflator	4.4	6.1	3.3	2.2	3.1	6.2	7.5	9.7	3.1
Consumer Price Index	4.3	6.4	1.5	1.1	2.6	5.0	8.5	10.8	3.3
Producer Price Index		5.7				5.9	8.3	8.3	0.9

1. The post-1982 business expansion has been characterized by the strongest growth rate of domestic demand in the post-war period except for the expansion which occurred during the Vietnam War.

Business Cycle Comparisons
Recessions

Levels at Peak & Trough During Recessionary Periods

	Peak	Trough	Peak	Trough	Peak	Trough	Peak	Trough	Peak	Trough	Peak	Trough	Peak	Trough
	1953:3	1954:2	1957:3	1958:2	1960:2	1961:1	1969:4	1970:4	1973:4	1975:1	1980:1	1980:3	1981:3	1982:4
Federal Budget Deficit as % GNP	-1.50	-1.82	0.61	-2.63	0.82	-0.83	0.44	-1.98	-0.13	-3.68	-1.41	-2.74	-2.02	-6.31
Cyclically Adj. Deficit as % GNP			0.57	-0.98	0.95	0.15	-0.43	-1.35	-0.69	-1.27	-2.11	-2.34	-1.82	-4.01
State & Local Deficit as % GNP	0.05	-0.27	-0.31	-0.54	0.04	-0.15	0.37	-0.02	0.81	0.85	0.96	0.97	1.17	1.11
Total Government Deficit as % GNP	-1.53	-2.09	0.33	-3.17	0.86	-0.99	0.81	-2.01	0.68	-3.03	-0.45	-1.78	-0.85	-5.19
Personal Savings as % GNP	4.98	4.21	5.13	5.02	3.91	4.35	4.97	6.06	7.43	5.75	4.76	4.99	5.39	4.45
Bus. Fixed Investment as % GNP	9.62	9.32	10.60	9.35	9.64	9.10	10.67	10.11	10.77	10.53	12.22	11.69	12.27	11.05
Pre-tax Corp. Profits w IVA & CCA as % GNP	10.34	9.56	10.03	8.28	9.62	8.70	8.26	6.96	8.12	6.34	7.22	6.21	6.20	6.55
Long Govt. Bond Yield / 3 mo. T-bill	1.55	3.21	1.08	3.29	1.37	1.63	0.89	1.17	0.84	1.17	0.83	1.14	0.99	1.31
Long Govt. Bond Yield (10 yrs. & over)	3.03	2.52	3.63	3.15	4.11	3.83	6.53	6.27	6.30	6.70	11.15	10.43	13.60	10.34
Real Long Govt. Bond Yield	2.41	1.93	0.21	-0.07	2.35	2.35	0.63	0.64	-1.93	-0.51	-3.13	-2.45	2.76	5.08
3 mo. T-bill Yield	1.96	0.79	3.35	0.96	2.99	2.35	7.35	5.35	7.50	5.75	13.35	9.15	15.05	7.91
Real 3 mo. T-bill Yield	1.33	0.20	-0.06	-2.26	1.24	0.88	1.45	-0.20	-0.73	-3.46	-0.93	-3.73	0.21	3.45

Business Cycle Comparisons
Expansions

Levels at Trough & Peak During Expansionary Periods

	Trough	Peak	Trough	Peak	Trough	Peak	Trough	Peak	Trough	Peak	Trough	Peak	Trough	Now
	1954:2	1957:3	1958:2	1960:2	1961:1	1969:4	1970:4	1973:4	1975:1	1980:1	1980:3	1981:3	1982:4	1987:4
Federal Budget Deficit as % GNP	-1.82	0.61	-2.63	0.82	-0.83	0.44	-1.98	-0.13	-3.68	-1.41	-2.74	-2.02	-6.31	-3.48
Cyclically Adj. Deficit as % GNP		0.57	-0.98	0.95	0.15	-0.43	-1.35	-0.69	-1.27	-2.11	-2.34	-1.82	-4.04	-4.34
State & Local Deficit as % GNP	-0.27	-0.31	-0.54	0.04	-0.15	0.37	-0.02	0.81	0.85	0.96	0.97	1.17	1.11	0.82
Total Government Deficit as % GNP	-2.09	0.33	-3.17	0.86	-0.99	0.81	-2.01	0.68	-3.03	-0.45	-1.78	-0.85	-5.19	-2.65
Personal Savings as % GNP	4.21	5.13	5.02	3.91	4.35	4.97	6.06	7.43	5.75	4.76	4.99	5.39	4.45	3.38
Bus. Fixed Investment as % GNP	9.32	10.60	9.35	9.64	9.10	10.67	10.11	10.77	10.53	12.22	11.69	12.27	11.05	9.98
Pre-tax Corp. Profits w IVA & CCA as % GNP	9.56	10.03	8.28	9.62	8.70	8.26	6.96	8.12	6.34	7.22	6.21	6.20	6.55	6.79
Long Govt. Bond Yield / 3 mo. T-bill	3.21	1.08	3.29	1.37	1.63	0.89	1.17	0.84	1.17	0.83	1.14	0.99	1.31	1.50
Long Govt. Bond Yield (10 yrs. & over)	2.52	3.63	3.15	4.11	3.83	6.53	6.27	6.30	6.70	11.15	10.43	13.60	10.34	9.24
Real Long Govt. Bond Yield	1.93	0.21	-0.07	2.35	2.35	0.63	0.64	-1.93	-0.51	-3.13	-2.45	2.76	5.08	4.78
3 mo. T-bill Yield	0.79	3.35	0.96	2.99	2.35	7.35	5.35	7.50	5.75	13.35	9.15	15.05	7.91	5.84
Real 3 mo. T-bill Yield	0.20	-0.06	-2.26	1.24	0.88	1.45	-0.20	-0.73	-3.46	-0.93	-3.73	0.21	3.45	1.40

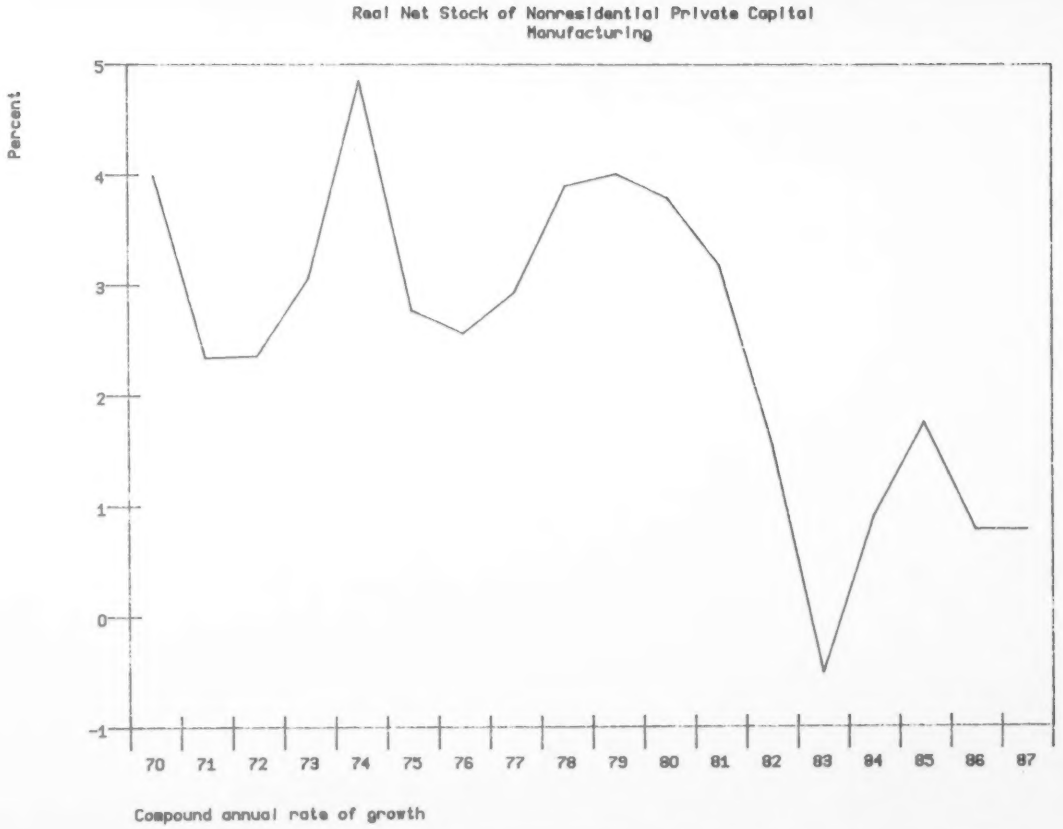
2. The above table shows the level of various economic policy indicators at the peaks and troughs of the U.S. economy's post-war business cycles. As the chart illustrates, the U.S. has never entered a recession with such a large government deficit both in nominal terms and on a cyclically adjusted basis. As the ratio of long-term government bond yields to T-bill yields will testify, most post-war recessions also have been preceded by yield curves which were much flatter than those which currently prevail.

6/29/88

Savings & Investment

	as a % of GNP												
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Gross Saving	16.2	17.1	14.1	13.6	15.1	13.2	12.6	12.6	13.3	13.3	13.4	13.6	13.7
Gross Private Saving	17.5	18.0	17.6	17.4	17.9	16.6	16.1	15.0	15.5	15.4	15.3	15.2	15.2
Personal Saving	5.0	5.2	4.9	3.8	4.4	3.2	3.1	2.7	3.3	3.5	3.6	3.7	3.8
Retained Earnings w/IVA & CCA adj.	1.4	1.4	0.6	1.9	2.5	2.5	2.2	1.7	1.6	1.4	1.3	1.2	1.2
Depreciation	11.1	11.4	12.1	11.6	11.0	10.9	10.8	10.7	10.6	10.5	10.4	10.3	10.2
Government Surplus	-1.3	-1.0	-3.5	-3.8	-2.8	-3.3	-3.5	-2.4	-2.2	-2.1	-1.9	-1.6	-1.5
Federal	-2.2	-2.1	-4.6	-5.2	-4.5	-4.9	-4.8	-3.4	-3.2	-3.2	-3.0	-2.8	-2.7
State & Local	1.0	1.1	1.1	1.4	1.7	1.6	1.3	1.0	1.0	1.1	1.1	1.2	1.2
Gross Investment	16.5	17.2	14.1	13.8	15.2	13.1	12.4	12.5	13.1	13.3	13.4	13.6	13.7
Gross Priv. Domest. Invest	16.0	16.9	14.1	14.7	17.6	16.0	15.8	16.0	16.1	15.9	15.7	15.8	15.8
Priv. Domestic Invest	16.3	16.1	14.9	15.0	15.8	15.8	15.5	15.0	15.2	15.1	15.0	15.1	15.1
Nonres. Fixed Invest	11.8	12.1	11.6	10.5	11.0	11.0	10.3	9.9	10.2	10.3	10.2	10.2	10.2
Res. Fixed Invest	4.5	4.0	3.3	4.5	4.8	4.7	5.2	5.1	4.9	4.8	4.8	4.9	4.9
Change in Bus. Inventories	-0.3	0.8	-0.8	-0.2	1.8	0.2	0.4	1.0	1.0	0.7	0.7	0.7	0.7
Net Foreign Investment	0.5	0.3	0.0	-1.0	-2.4	-2.9	-3.4	-3.5	-3.0	-2.6	-2.3	-2.2	-2.1
statistical discrepancy	0.2	0.1	0.0	0.2	0.1	-0.1	-0.1	-0.1	-0.2	0.0	0.0	0.0	0.0
Addendum:													
Federal Surplus	-2.2	-2.1	-4.6	-5.2	-4.5	-4.9	-4.8	-3.4	-3.2	-3.2	-3.0	-2.8	-2.7
Exc. Social Security								-3.8	-4.0	-4.1	-4.0	-4.0	-4.0
Social Security								0.4	0.8	0.9	1.0	1.2	1.3

3. The persistance of large federal budget deficits will make it difficult to reduce the nation's external deficit unless personal savings rise sharply or private investment falls. On current policy assumptions, the current account deficit will shrink to 2.1% of GNP but still exceed $100 billion in 1992.



4. The growth rate of the nation's manufacturing capital stock shrank in 1982-1983 for the first time in the post-war period.

Capacity Utilization Rates By Industry

	Current	1979 Average	1982 Average
Total	82.7%	85.2%	72.1%
Manufacturing	83.0	84.6	70.3
Durables	81.1	84.1	66.8
Stone, clay, glass	82.3	85.0	65.1
Primary metals	84.4	88.6	54.2
Fabricated metals	82.8	85.5	65.4
Non-electrical machinery	79.6	84.2	67.0
Electrical machinery	77.6	87.3	70.6
Motor vehicles & parts	80.9	78.2	54.3
Non-auto trans.	87.5	82.8	72.1
Instruments	80.3	87.3	81.8
Non-durables	85.7	85.3	75.4
Food	80.4	82.7	77.4
Textiles	90.6	86.7	73.6
Paper	95.4	89.8	82.6
Chemicals	84.9	81.7	68.5
Petroleum	88.7	86.4	72.0
Rubber & plastics	88.5	86.0	73.3

5. As a result of weak manufacturing investment during the early 1980's, the export boom is creating capacity constraints in some industries. Delivery times rose sharply during June.

6. While manufacturing investment lagged, investment in commercial real estate and the service industries rose sharply both in absolute terms and as a share of GNP during the 1980's.

88:1 & 88:2 based on planned expenditures published by the BEA.
Assumed 6.5% GNP growth in 1st & 2nd qtr. of '88

14. Investment in the economy's non-tradeable sectors boomed and is still growing at healthy pace.

7/1/88

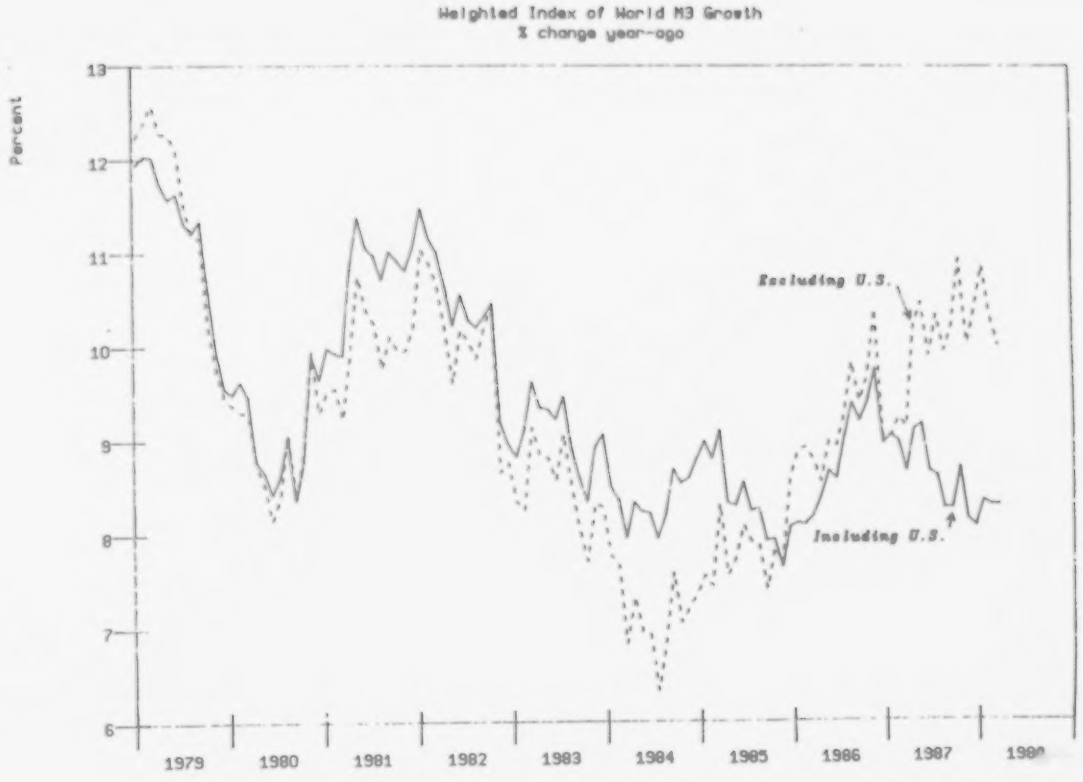
Currency Breakdown of Reporting Banks' External Positions
vis-a-vis the Non-Bank Sector

Semiannual
(billions of U.S. dollars)

Liabilities	1977 I	1977 II	1978 I	1978 II	1979 I	1979 II	1980 I	1980 II	1981 I	1981 II	1982 I	1982 II	1983 I	1983 II	1984 I	1984 II	1985 I	1985 II	1986 I	1986 II	1987 I	1987 II
Banks in Industrial Reporting Countries:																						
A) Foreign Currencies																						
Dollars	45.2	61.8	89.7	112.5	113.7	153.1	162.9	164.5	175.0	189.8	194.8	193.3	194.3	199.2	214.3	222.5	239.0	244.9				
Other	12.3	16.8	22.7	27.9	25.9	30.3	28.4	31.4	29.8	31.7	33.5	32.4	37.9	48.0	66.0	83.0	100.4	124.9				
Total	57.5	78.6	112.4	140.4	139.6	183.4	191.3	195.9	204.8	221.5	228.3	225.7	232.2	247.2	280.3	305.5	339.4	369.8				
Ratio	3.7	3.7	4.0	4.0	4.4	5.1	5.7	5.2	5.9	6.0	5.8	6.0	5.1	4.2	3.2	2.7	2.4	2.0				
B) Domestic Currencies																						
Dollars									25.3		43.4	49.2	53.6	61.5	65.0	66.7	68.8	71.4	73.2	69.3	71.0	
Other									40.2		40.3	37.5	43.5	44.5	44.8	48.5	63.0	74.0	81.3	94.3	116.0	
Total									65.5		83.7	86.7	97.1	106.0	109.8	115.2	131.8	145.4	154.5	163.6	187.0	
Ratio									0.6		1.1	1.3	1.2	1.4	1.5	1.4	1.1	1.0	0.9	0.7	0.6	
C) Total Currencies																						
Dollars									178.4		207.9	224.2	243.4	256.3	258.3	261.0	268.0	285.7	295.7	308.3	315.9	
Other									70.5		71.7	67.3	75.2	78.0	77.2	86.4	111.0	140.0	164.3	194.7	240.9	
Total									248.9		279.6	291.5	318.6	334.3	335.5	347.4	379.0	425.7	460.0	503.0	556.8	
Ratio									2.5		2.9	3.3	3.2	3.3	3.3	3.0	2.4	2.0	1.8	1.6	1.3	
ECU's													0.6	0.8	1.0	2.1	3.2	3.6	3.2	3.7	4.6	

Source: Bank for International Settlements
Monetary & Economic Dept.

14. The sharp decline in the dollar share of offshore bank deposits owned by non-bank investors suggests that capital flight from the dollar may also have depressed the growth rate of the domestic money aggregates. While the Fed does not collect data on domestic residents' foreign currency balances, the protracted decline in the dollar has probably encouraged a shift out of dollar deposits.



Weights: U.S. 40%, U.K. 5%, Germany 23%, France 7%, Japan 25%
(Thru Mar. '88)

15. While U.S. money growth declined during 1987 and early 1988, it accelerated in other countries partly because of central bank intervention to stabilize our exchange rate.

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	86:1	86:2	86:3	86:4	87:1	87:2	87:3	87:4	88:1	88:2	88:3	88:4	89:1	89:2	89:3	89:4	90:1	90:2	90:3	90:4	91:1	91:2	91:3	91:4	92:1	92:2	92:3	92:4
U.S. Current Acct. (assmp. 01)	-132	-135	-146	-152	-148	-165	-176	-156	-160	-160	-162	-162	-162	-162	-164	-164	-159	-159	-155	-155	-146	-146	-140	-140	-136	-136	-130	-130
Total Res. (+ Taiwan)																												
with 25 % intervention	472	506	537	550	623	669	698	790	820	850	881	912	943	975	1,007	1,040	1,073	1,106	1,139	1,172	1,205	1,238	1,271	1,304	1,337	1,371	1,404	1,438
with 50 % intervention	472	506	537	550	623	669	698	790	840	890	941	993	1,046	1,099	1,153	1,208	1,263	1,318	1,373	1,428	1,483	1,537	1,591	1,645	1,700	1,755	1,809	1,863
with 75 % intervention	472	506	537	550	623	669	698	790	860	930	1,002	1,074	1,149	1,223	1,300	1,376	1,453	1,530	1,607	1,685	1,760	1,836	1,912	1,987	2,063	2,139	2,214	2,290
with 100 % intervention	472	506	537	550	623	669	698	790	880	970	1,063	1,156	1,251	1,347	1,446	1,545	1,643	1,742	1,841	1,941	2,038	2,135	2,232	2,329	2,426	2,523	2,619	2,716

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	86:1	86:2	86:3	86:4	87:1	87:2	87:3	87:4	88:1	88:2	88:3	88:4	89:1	89:2	89:3	89:4	90:1	90:2	90:3	90:4	91:1	91:2	91:3	91:4	92:1	92:2	92:3	92:4
U.S. Current Acct. (assmp. 01)	-26.0	-14.9	-28.2	-17.7	-11.7	-22.5	-18.7	-2.7	-9.4	3.2	6.8	-3.9	-1.3	-1.3	-1.2	-1.2	1.9	1.9	5.5	5.5	8.2	8.2	9.7	9.7	6.8	6.8	7.1	7.1
Total Res. (+ Taiwan)																												
with 25 % intervention	16.3	18.3	19.7	19.4	31.9	32.2	29.9	41.5	31.6	27.0	26.2	15.4	15.0	14.7	14.4	14.1	13.8	13.4	13.1	12.7	12.3	12.0	11.6	11.2	11.0	10.7	10.5	10.2
with 50 % intervention	16.3	18.3	19.7	19.4	31.9	32.2	29.9	41.5	34.8	32.9	34.9	25.7	24.5	23.5	22.5	21.7	20.8	20.0	19.0	18.2	17.4	16.6	15.9	15.2	14.7	14.2	13.7	13.2
with 75 % intervention	16.3	18.3	19.7	19.4	31.9	32.2	29.9	41.5	38.0	38.9	43.6	36.0	33.6	31.5	29.7	28.1	26.5	25.1	23.7	22.4	21.1	20.0	18.9	18.0	17.2	16.5	15.8	15.2
with 100 % intervention	16.3	18.3	19.7	19.4	31.9	32.2	29.9	41.5	41.2	44.9	52.3	46.3	42.2	38.9	36.0	33.6	31.3	29.4	27.6	25.6	24.0	22.6	21.2	20.0	19.0	18.2	17.4	16.6

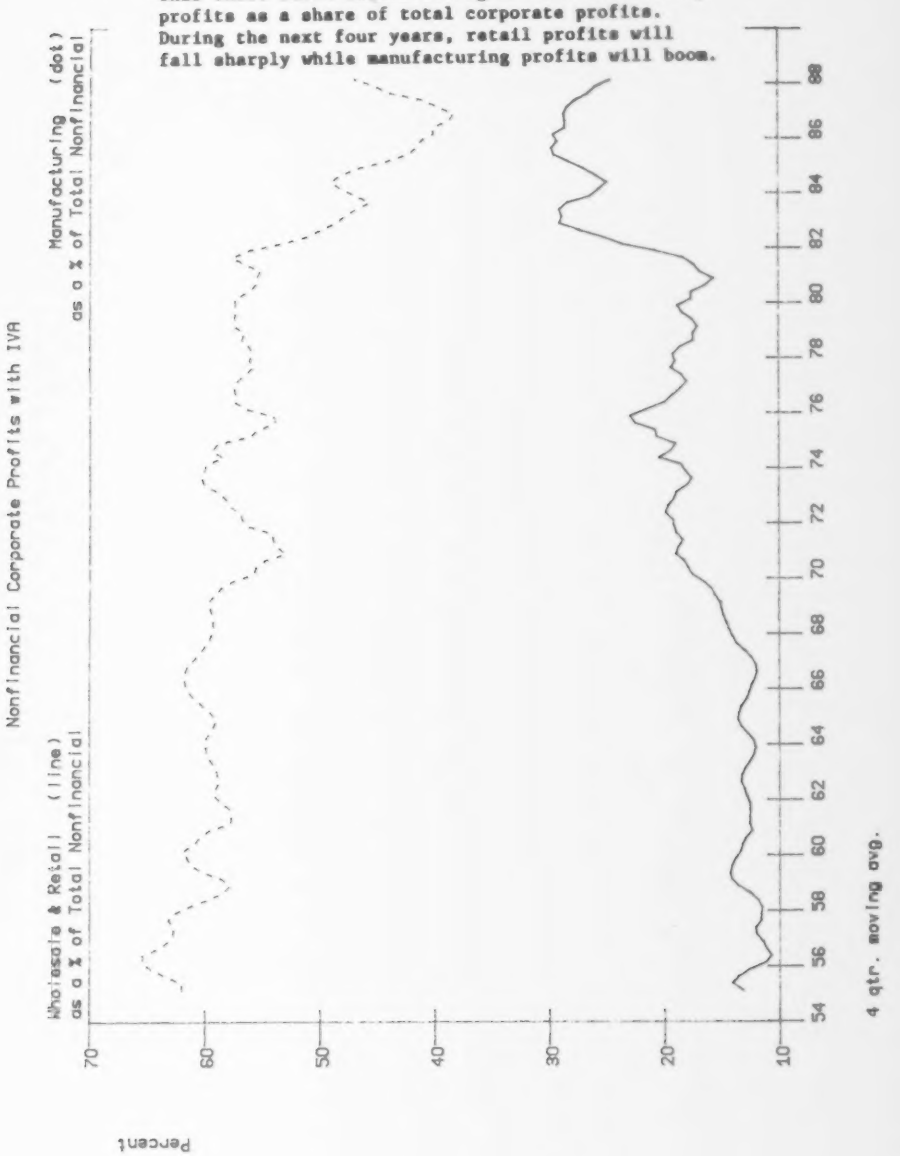
Year-ago compound annual rate of growth

16. This table shows the potential growth rate of world foreign exchange reserves if central banks have to finance 25%, 50%, 75% and 100% of the U.S. current account deficit. It would be possible for central banks to finance a modest portion of the current account without losing control of their domestic money supplies, but financing on a scale equal to last year's could lead to a repeat of last October's bond market crisis and stock market collpase.

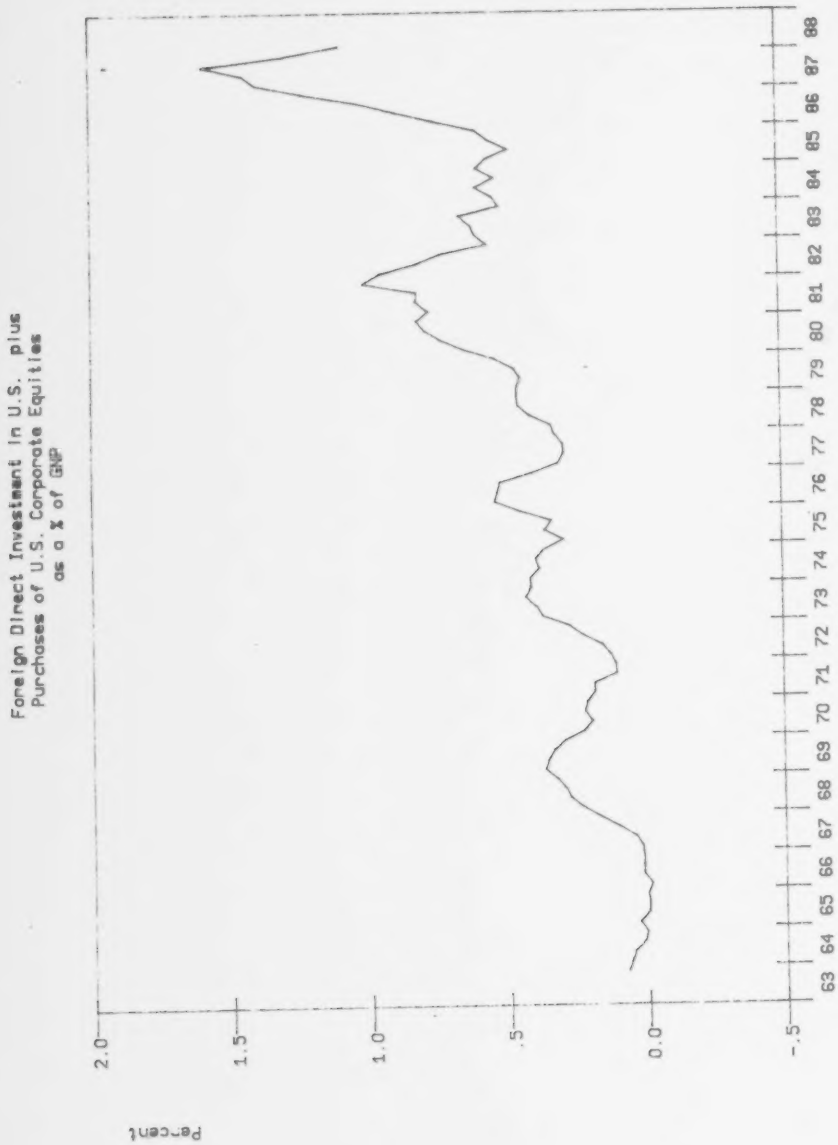
7. **Prices of intermediate goods less food and energy have risen sharply during the past year. Finished goods prices are trending higher but at a gradual pace.**

Producer Price Indexes
6 month annual rate of change

8. One of the factors which has helped to restrain inflation is erosion of retail industry profit margins. Before 1987, they rose to the highest level in modern history because of the strong dollar and the great Reagan consumption boom. This chart shows manufacturing and retail industry profits as a share of total corporate profits. During the next four years, retail profits will fall sharply while manufacturing profits will boom.

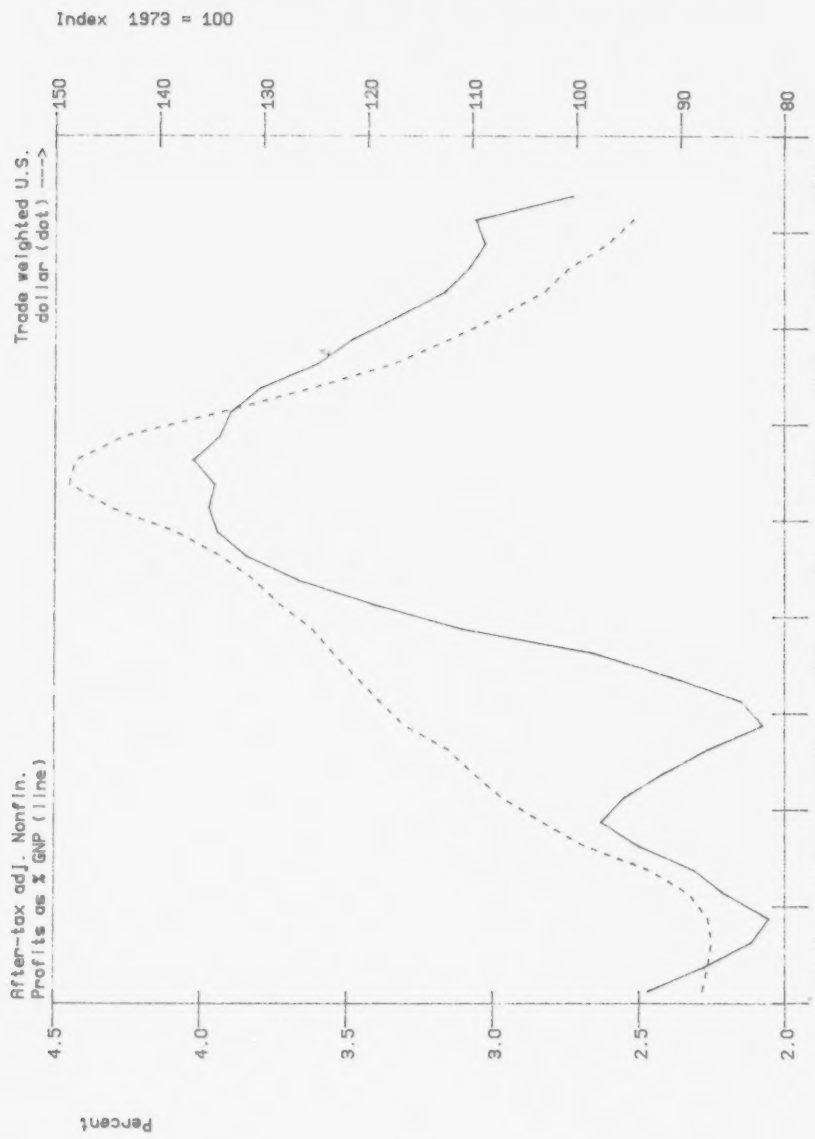


9. **One of the reasons the U.S. may be able to prolong its balance of adjustment process is growing foreign direct investment and equity purchases.**


Foreign Direct Investment in U.S. plus
Purchases of U.S. Corporate Equities
as a % of GNP
Percent
2.0
1.5
1.0
.5
0.0
-.5
63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88
4 qtr. moving average

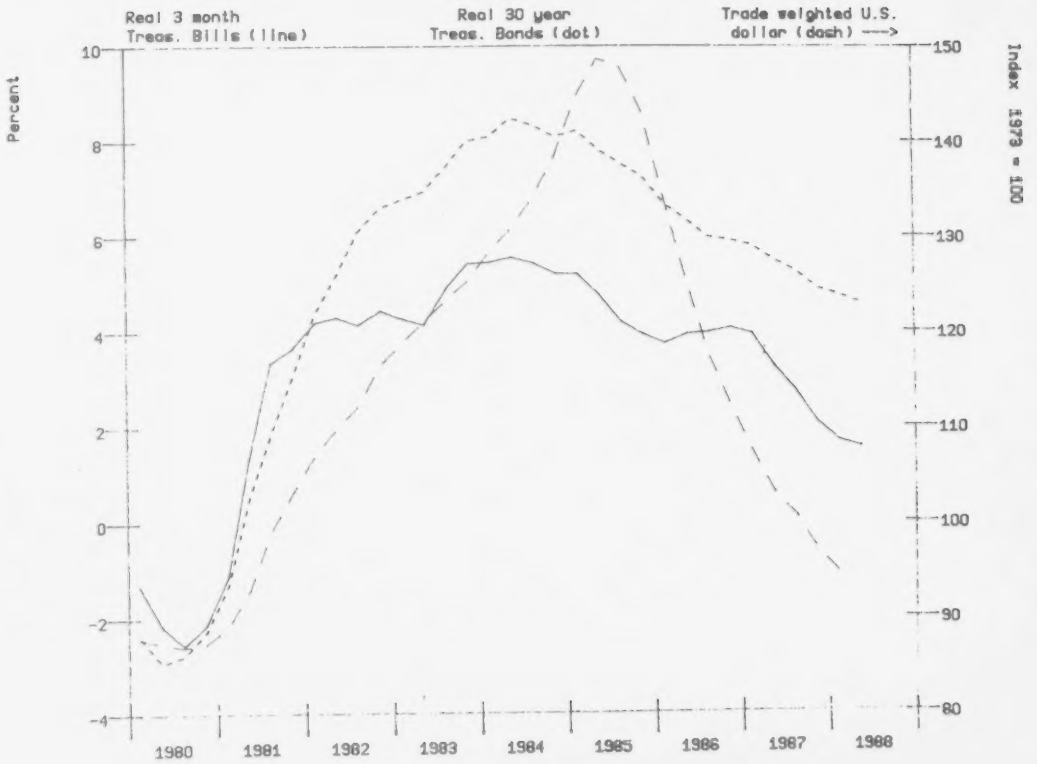
1. Foreign direct investment and equity purchases rose sharply during the first half of 1987, but they have receded during recent quarters as foreigners scaled back their exposure to the U.S. stock market.

10. The recent dolalr rally appears to reflect interest rate differentials more than a bouyant new economic environment comparable to the early 1980's. The profit share of GNP has fallen during recent years after rising with the dollar during the early 1980's.



4. The dollar rally of the early 1980's co-incided with a sharp rise in the profit share of GNP resulting from tax policy and paycuts. Now the profit share of GNP is falling.

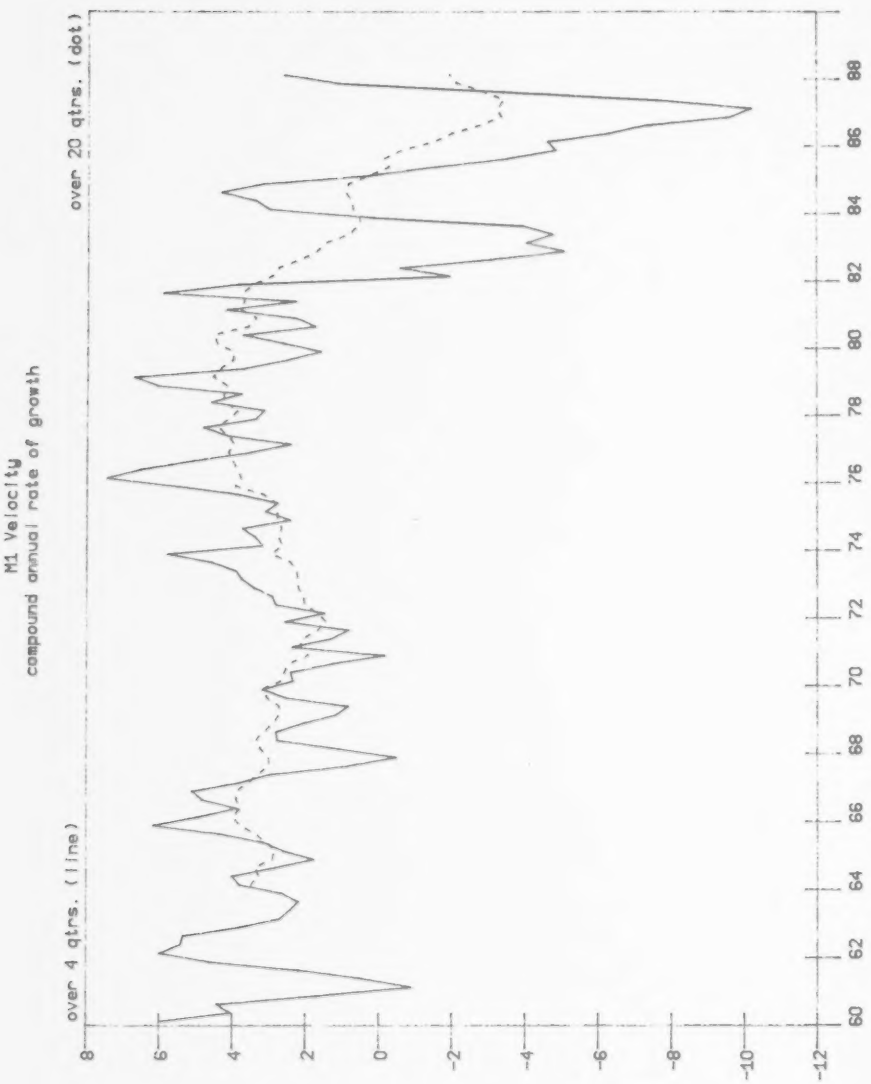
11. The decline in profits caused by tax reform has probably also weakened the economy's tolerance for high real interest rates.



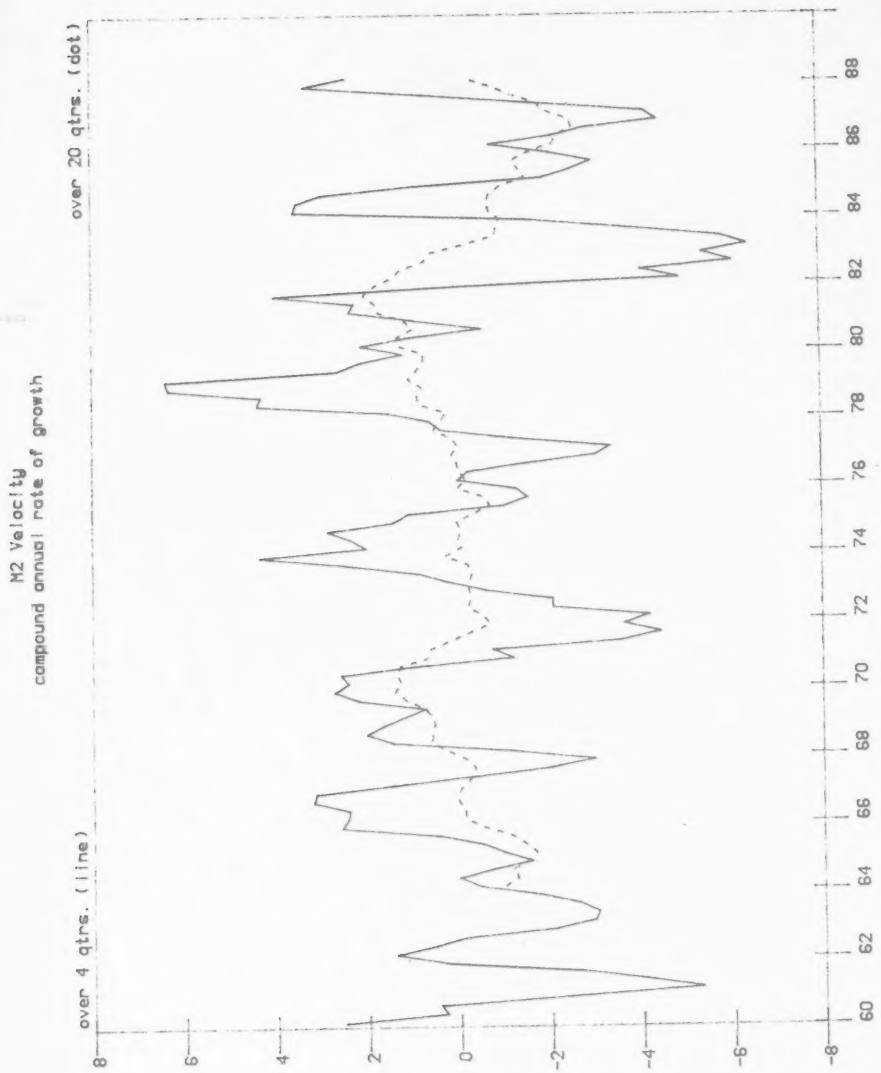
4 qtr. moving average

2. The rise in the profit share of GNP also increased the economy's interest rate tolerance and permitted a sharp rise in real yields for both short and long maturity instruments.

12. The growth rate of money velocity is now too unstable for the Fed to adhere to traditional monetary targets. The demand for M1 has shifted downward dramatically during the past five years.



13. The demand for M2 also has declined due to more aggressive cash management practices.



The CHAIRMAN. Thank you, Mr. Hale. I want to thank all you gentlemen for excellent presentations.

Mr. Fair, as you might expect, I can't resist starting off with you in view of the fact that you're telling us how we can predict elections and we're going to know whether Bush or Dukakis is going to win—I should say the Dukakis-Bentsen combination versus Bush and Kemp or whoever he picks—how they're going to make out.

It's awfully disillusioning for those of us in politics that hear anybody, particularly a skilled professional such as you are, can say that you can forget the personalities, you can forget all the issues that we work so hard on and believe so deeply in, forget the deficit, forget everything, as long as you get the combination 1½ years before the election or 2 years before the election of relatively stable inflation or not much change in inflation and a substantial growth, then the election will be determined by those economic forces without reference to either the personality or the campaign or any of the other things that we focus on.

And I must say, on page 3, you present us with some remarkable data that shows that in at least 14 of the 18 elections you came very close. I would say that in 1964 it failed. Somehow Goldwater versus Johnson was missed by 7 percent and in 1924 and in 1928 and 1944 the miss exceeded 3 percent, so that you might argue that that wasn't too accurate.

But in all the others it was remarkably close. In 1980, for instance, you hit it exactly right on the nose and in the others you came within 1 percent or so of predicting how it would turn out.

Now you tell us, however—boy, this is something—now you tell us that in 1988, which is what we really are concerned about, you can't tell us. It's too close to call. Is that right?

Mr. FAIR. Well, Senator, this is not deterministic. In any equation in economics, there are factors that we don't account for. They are what we call error terms, things that affect, in this case, votes that are not in the equation, that are not in the economic equation.

The CHAIRMAN. But this equation did predict 14 out of 18 elections.

Mr. FAIR. Yes.

The CHAIRMAN. And it predicted 17 out of 18 within a little over 3 percent.

Mr. FAIR. Right. On average, it makes an error of about 3 percent is what I'm saying. So that politicians should not be dismayed. If the predicted vote is within 3 percentage points, then there's hope because on average this is what the error is. So if I'm predicting 48.2 percent for the Republicans, that's a very close election and there are truly other factors that affect the votes other than the economy and that affects about 3 percent of the total.

The CHAIRMAN. But you're saying, rightly or wrongly, regardless of how you arrived at it, that if you get the growth and inflation, it may in the long run—the policies may be terrible—I think they are now. They couldn't be worse. We have a terrific national debt. We have a terrific household debt. We have an enormous business debt. I can see nothing but grief for our economy in the future. You're saying the public doesn't care about that. All they care about is what's happened over the last 1½ years.

Mr. FAIR. That's what the evidence seems to indicate, yes, that they care about GNP growth and inflation. There's not any evidence that they care about the debt, as one can find it.

The CHAIRMAN. Now let me say one of the reasons we asked you gentlemen to testify, of course—the principal reason—is because tomorrow we're having the Chairman of the Federal Reserve Board testify and we wanted to get the most expert testimony we can so that we could evaluate that testimony we're going to get tomorrow and determine whether it's sound or whether we should criticize it and so forth.

Now let me review what you've said very quickly. Mr. Blinder, you have indicated that you think the Federal Reserve Board's monetary policy is about right.

Mr. BLINDER. Yes.

The CHAIRMAN. Dr. Dornbusch, you say it's about right maybe but it may be becoming a little too tight, slowing the economy. Is that right?

Mr. DORNBUSCH. I'm expressing the fear that next year the Federal Reserve will feel like making a recession unless Congress moves on the budget. All of the problems are next year, not right now.

FED CAN PREVENT RECESSIONS

The CHAIRMAN. Well, are you telling me that the Federal Reserve somehow can prevent recessions from occurring?

Mr. DORNBUSCH. Certainly. They did last fall.

The CHAIRMAN. Well, once in a while, but are you saying that if we have the proper Federal Reserve Board policies we will never have another recession?

Mr. DORNBUSCH. I certainly didn't come close to saying that. But they did last fall in a very, very critical situation do an extraordinary job avoiding a recession, yes.

The CHAIRMAN. But if we're going to have a recession, is it not possible to argue that it's better to take the recession as soon as possible if in taking the recession you reduce spending and increase taxes and reduce the deficit and move the household sector and the business sector into a more sound and stable position?

Mr. DORNBUSCH. That is exactly what I'm saying, that we should have fiscal restraint, not recession, and not Federal Reserve recession because a Federal Reserve recession would be extremely——

The CHAIRMAN. You distinguish between recessions?

Mr. DORNBUSCH. Certainly. A Federal Reserve recession tests all the financial fragility in a particularly difficult way.

The CHAIRMAN. Mr. Fair, I don't think you made a judgment as to the Federal Reserve Board's monetary policy.

Mr. FAIR. I said somewhere I thought they should be given substantial credit for the past performance of the economy. So basically I would agree with Alan Blinder that the Fed policy has been about right.

I would hope, as I said, that for next year that Congress and the administration could lower the deficit some and that the Fed would then perhaps ease up to counter the negative effects of that on the economy.

The CHAIRMAN. All right. Mr. Hale?

Mr. HALE. I would concur that the Fed has had a good policy over the last 9 months. It began to tighten last autumn in response to the threat of inflation and after the stock market crash it eased very quickly. I think it pleasantly surprised the market by tightening so aggressively in the face of the resurging economy and growing inflation pressures this spring.

But I think over the next year the challenge facing the Fed because of these twin deficits, because of the need to maintain a very modest growth rate, and also to close the very large trade deficit, will overtax the capacity of the Fed unless it has help from fiscal policy.

I think a monetary policy recession, as Mr. Dornbusch indicated, would be very destructive. We have large levels of debt. We have a serious crisis in our deposit insurance companies. We already have a large Federal deficit. I think a recession next year is not a viable policy option, but I'm afraid the alternative to that, if we don't get a fiscal policy change, would be an inflation rate heading toward 6 percent and bond yields well above 10 percent.

The CHAIRMAN. You say it's not a viable policy option to have a recession next year?

Mr. HALE. All policy choices obviously are a question of tradeoffs and I think the tradeoffs of a recession next year would be so destructive and so destabilizing that it is not an attractive policy choice at all.

I would rather live with 5 or 5.5 percent inflation for the next year if we could get significant fiscal policy progress than to try and have the Fed crunch the economy.

The CHAIRMAN. My time is up. Senator Bond.

Senator BOND. Thank you, Mr. Chairman.

It probably comes as no surprise that I don't share the chagrin just expressed over the prospects for the parties, given the continued relatively low inflation rate and the strong growth in GNP. I suggest that perhaps we realize that we're limited in our ability in Congress to mess up the economy and if the people of the United States are interested in low rates of inflation and strong growth rates that we perhaps ought to adjust our policies to achieve those and I particularly appreciated the comments that all of you have made about the need for us in Congress to do something about the deficit.

I'd like to move to a sort of related area that has interested me. I have seen some knowledgeable economists who are saying that one unintended effect of the increased internationalization of our debt is the fact that the international bondholders, the people who are putting the money into finance our excesses, are controlling interest rates and to some degree exercising through the market mechanism the role that we traditionally expect the Federal Reserve to exercise in monetary policy.

At least one has said that this fine-tuning may prevent monetary policy from bringing about a recession because it makes continuing responsive changes in interest rates and money supply.

I'd like to ask if any of you have comments on that, to what extent you think that international markets really are playing an

increasing role rather than the Federal Reserve in our monetary policy.

INFLUENCE OF INTERNATIONAL MARKETS

Mr. BLINDER. Well, there's no doubt truth to the idea that bond markets are increasingly internationalized and what goes on not only in the United States, but also in Zurich and lots of other places, affects our interest rates and also Switzerland's interest rates. I think it's easy to exaggerate the effect on monetary policy. The idea that monetary policy is now in the hands of the gnomes of Zurich or the gnomes of somewhere else is easy to exaggerate.

To some significant extent, these people are trying to guess what the Federal Reserve, and also the Bank of Japan, and other central banks, are trying to do. So I think it's proper to think that the responsibility for and the authority over monetary policy still rests with the world's central bankers and not with the world's bond traders.

Mr. DORNBUSCH. I would add to it that the short-term interest rates are determined by the monetary authorities. The only way world capital markets get into the act is if the monetary authorities have exchange rate targets. Then the decline in the dollar would force an increase in interest rates through tighter money. So if we get exchange rate targets, then we would affect monetary policy.

Today we are doing exactly the opposite with very strong exchange rate targets and that's behind the dollar appreciation a substitute for raising interest rates.

Mr. FAIR. I have nothing to add. I agree with that.

Mr. HALE. I would concur and again just to restate what I said in the very beginning, we've always had some international components in interest rates but we now have more capital mobility in the world economy than at any time since before 1914. Because of the depression and the two world wars we had restrictions on capital mobility and the financial markets were quite insulated. I think the current financial environment in the United States is highly anolagous to the 1890's when we were importing capital from Britain. In fact, if you look at our external debt in terms of GNP you will see that Ronald Reagan and his successor will have taken us on a 100-year roundtrip. By 1992–93, our external debt or foreign investment here will be about 21 percent of GNP, which is exactly what it was in the days of Grover Cleveland. In that period, changes in foreign capital flows were a major influence on our stock market and interest rates. In fact, all the great bear markets of the late 19th century were grounded on exchange rate uncertainty and changes in British capital flows. As with the stock market crash last year, I think again we're going to see foreign flows are quite important for some time to come.

Senator BOND. Let me follow up on that by starting off with you, Mr. Hale. We have all seen the stock market crash of October 1987 fail to predict the crash in the economy this year. Is there a weakening of the linkage between the financial markets, between Wall Street and Main Street? Is this an aberration?

Mr. HALE. I would say that the crash was very badly interpreted by the New York financial community back in the winter. In my opinion we were heading for very high interest rates in the United States because of the danger of rising inflation. Because of the breakdown in the arbitrage system between the stock market and the futures market, we had a compression of that financial adjustment process into a 1-day collapse called Black Monday. I believe it's very hard to have a recession in a country that's had a big currency depreciation unless you have severely restrictive fiscal and monetary policy. We didn't have that. I think the major error made by Wall Street in particular last winter was not to recognize the linkage, that in fact the real concern of the market was not recession but inflation leading to higher interest rates triggering recession at some point combined with the gigantic technological accident.

Mr. FAIR. The stock market went up substantially in the first half of 1987 and then crashed later and now has come back up again. The net effect on consumption and spending is not that large, looked at from more than just a 3-month period. From the start of January 1987, the wealth effect has not been that substantial. So you wouldn't have expected much of an effect on consumption, and we certainly haven't seen it.

Mr. DORNBUSCH. I agree.

Mr. BLINDER. Let me just add one more thing. You're hearing this with the wisdom of hindsight, to be sure, for a lot of us had some fears in the fall. It wasn't only politicians, but also economists who had some fears about what the stock market crash might do to the economy. With the wisdom of hindsight, however, one thing we can see that made a big difference is that, as the stock market fell, the bond market rose and interest rates fell. Looking now on the investment side of the coin rather than on the consumption side, both markets influenced the average cost of business capital. The expected effect on investment, given the adverse movement of the stock market and the favorable movement of the bond market, was not that great. That's not something a lot of people were saying on October 19; but, in retrospect you can see that was so.

Senator BOND. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Sasser.

Senator SASSER. Thank you very much, Mr. Chairman.

I have an opening statement which I would like to have printed in the record as if read.

The CHAIRMAN. Without objection, it will be printed in full in the record.

STATEMENT OF SENATOR JIM SASSER

Mr. Chairman, I am pleased that you are convening the committee for our biannual look at monetary policy and the state of the economy.

I think that we are at an important point. The economy appears to be performing at a better than expected level. And naturally we

are already hearing the calls for a tightening up, lest inflation rear its head.

Well I think we need to wait on a tightening up. There is too much fragility in the financial system. Indeed, there is too much danger that a tightening up could eventually cause a recession.

A recession would be a disaster. The fiscal situation would be intolerable. The savings and loan crisis would reach astronomical proportions. *Any* increase in rates now I remind the committee will only exacerbate the condition of the thrifts.

So I think we need to see some solid evidence of a pick up in inflation before rates go up. Wage and price increases are moderate. The relatively low unemployment rate does not necessarily mean the economy is heating up.

I look forward to today's testimony.

It seems to me that given the fragility of the financial system at the present and our fiscal imbalance that we ought to be trying to avoid a recession almost at all costs. Quite frankly, it appears to me that the Federal Reserve is peopled with determined inflation fighters who see inflation where it may not be there and they could very well trip off a recession.

We already have a fiscal deficit hovering at around $150 billion annually and I don't see any realistic estimates of any major improvements in that. We have a thrift crisis which could cost us upwards of $60 billion to resolve. The commercial banks are carrying large portfolios of nonperforming loans from the less developed countries, energy loans that aren't performing, agricultural loans that aren't performing, and the banks may soon be carrying large portfolios of nonperforming leveraged buyout loans as well, from what I'm reading.

Now it appears to me that a recession would greatly magnify these problems. It would certainly make the S&L crisis much, much worse. And I fear, when we got into this recession that Congress would have no ability, and the administration would have no ability, to conduct a countercyclical fiscal policy because we just wouldn't have the money. We're broke. Indeed, there probably would be pressure to cut spending and raise revenue ala 1930-31. It appears to me in this scenario that the Federal Reserve has an absolutely critical role. I think we need to be encouraging lower interest rates right now rather than constantly searching for the slightest signal of an uptick inflation.

All we've been hearing in the past week is that the economy is overheating and that interest rates need to be raised. There's speculation the Fed will up the Federal fund rates this week.

Now given the danger of recession, why don't we wait for more solid evidence of inflation before we rein in our monetary policy? Am I right or wrong in my assessment here? And I'd like to hear from this distinguished panel what their views are. Why don't we start with you, Dr. Blinder, and see what you have to say about this observation.

RECESSION

Mr. BLINDER. Well, I very much agree with what you said, as I tried to hint in my testimony. A recession now or next year, espe-

cially if induced by monetary restrictions, would indeed exacerbate a lot of the problems that you alluded to. And I agree 100 percent that it's pie in the sky to think that we could have a timely fiscal offset given that the hypothetical recession we're talking about would push the Federal budget deficit to $250 or $300 billion. So I don't think we would get stimulus from the budget. Hence, I think this is a scenario to be avoided. I also think there is a tendency—I'm happy to say for a change, for I don't think it has been historically true, but for a change, the tendency to get hysterical over the slightest indication of inflation now seems much stronger on Wall Street than it does at the Fed. That hasn't always been the case. But I think this particular Fed seems to be more recession-averse than previous Boards of Governors, more so, say, than the average over a long period of history. And hence I think we have some reason to think, based also on their past performance, that this group is not likely to be panicked into pushing us into a recession at the slightest hint of inflation. I certainly think that's what they should be doing, and I think maybe that's what they would be doing.

Senator SASSER. Does anybody else wish to address this?

Mr. DORNBUSCH. I'd like to comment, too. I think the problems for the Federal Reserve is to get a live economy to the next administration so they certainly must do everything to avoid a recession in the second half of this year since that would make fiscal correction entirely impossible. After that, they have done most of the work and the burden will be on Congress to change the fiscal policy and if that does happen the Federal Reserve must assist with an accommodating monetary policy that permits a slowdown but avoids a recession. So two parts—one until Christmas by no means recession, and after Christmas to sit on the next administration hard. I do think we cannot say today that inflation is not the issue. If you go back to the Economic Report of the President of the 1960's and read it year by year, you would think you were in the 1980's. We're exactly in 1968. There's absolutely no question. The uncomfortable part is that inflation is rising so slowly that it isn't dramatic and that one can believe there is no problem.

Mr. FAIR. Well, just quickly, we should distinguish between a recession and tight money. If it's the case that we have a big export boom because of past falling of the dollar and the economy otherwise remains strong and fiscal policy continues to run very large deficits, it may simply be that we are overheating because fiscal policy is not cooperating. In that case, I would think what we would have to have is a tight monetary policy. That doesn't have to lead to a recession. It's just a change in the mix in the opposite way than most of us want, but it will be a policy to try to keep the economy from booming more than it should. That doesn't have to imply a recession but it may in fact imply tight money.

Mr. HALE. I would just add that the Fed's current policy mode is very much one of fine-tuning. We are not looking at a repeat of the policies we had under Arthur Burns in 1974 and Paul Volcker in 1981 as a consequence of high inflation, you can measure that by looking at real short term interest rates which are currently at 2 and 3 percent, which is the lowest level in this decade. I don't sense any support either in this town or in the country as a whole for

severe monetary crunch because inflation is now under control, but also, as Dr. Dornbusch indicated, the preconditions for inflation are certainly in place and therefore this fine-tuning policy could require further moderate upward adjustments in interest rates but the stress would be on moderate and not a repeat of the sledgehammer of 1981-82.

Senator SASSER. My time has expired. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Graham.

Senator GRAHAM. Thank you, Mr. Chairman.

There have been some traditional relationships that have been looked at in terms of growth levels of GNP, inflation and unemployment which are balanced in order to achieve a stable economy. These tend to infer that we are an island that is unaffected by external events, a fact which we know to be wildly inaccurate.

To what degree do we need or are we adequately incorporating external economic events in our traditional patterns of domestic monetary policy?

EXTERNAL ECONOMIC EVENTS

Mr. BLINDER. Well, that's a good question to ask Mr. Greenspan. I think much more than previously everybody is keenly aware—sometimes it seems too aware—of the sensitivity of international capital flows. We have all been speaking about the export boom that's going on in the United States as a very major factor in thinking about what monetary policy should be doing now, and I think there's every reason to think that the Fed is also thinking about that. Should OPEC III occur any time soon—and nobody thinks that it will—the Fed and everybody else would quickly recognize the international implications of that.

So I think our eyes are watching the right places. That's not to say that we can predict and anticipate what's going to go on at all perfectly in these dimensions.

Senator GRAHAM. One specific issue I heard some discussion that if given our current 5.3 percent rate of unemployment, which is defined as almost a full employment economy, that if the gross national product rises above 2.5 or 3 percent that we may be facing the kind of inflationary pressures that I think Senator Sasser was concerned about.

My reservation about that analysis is that that assumes that the additional consumption capacity which that GNP level above 2.5 or 3 percent infers is only going to be met with our own domestic economy and if it's at full employment ergo inflation must follow. It seems to me that that doesn't appear to adequately take into account the fact that there is the rest of the world out there which is capable of producing products and services which could absorb that GNP growth.

I think my question falls into the same gilt as Senator Sasser's, that we may be searching for phantoms upon which to justify a new surge of inflation and therefore potentially overreacting with some unanticipated negative consequences.

Mr. DORNBUSCH. I think the policy you're advocating is exactly what is being done now. Getting the dollar up in order to slow down the growth of exports to have more goods available in the

U.S. economy for inflation fighting and we do that by borrowing abroad and we can do that for 1 year or 2 or 3 or 4. If we do it long enough you look like Mexico or Argentina. They have really fought inflation extremely well for 5 years. Then, of course, they had the huge collapse in the exchange rate.

I think the risk today is to use a strong dollar for inflation fighting at the cost of slowing down the trade adjustment. And that's exactly as you describe it. You use foreign resources to fight inflation at home and there's lots out there providing we guarantee the exchange rate.

Mr. FAIR. If we are at full employment roughly now, then domestic production can only grow at the rate of technical progress and labor force growth, which is about 3 percent, so that we could continue without too much inflationary pressure to grow 2.5 or 3 percent domestically, but that's about it. If we want to consume more than that, we have to do what Mr. Dornbusch said.

Senator GRAHAM. If Mr. Bush or Mr. Dukakis were to call you and ask you to do some anticipatory planning of what they should focus their attention on during the period from the election until January 20 in order to be prepared to deal with the most urgent economic issues of the new administration, what advice would you give them?

Mr. FAIR. I think the fiscal policy needs to be contracted some, as most of us do. So I would argue for a tax and expenditure package that would lower the deficit substantially in the next 3 to 5 years, something that we have been trying to do for years without much success. I would say that's probably one of the top priorities for the new administration.

Senator SASSER. Mr. Bush might hang up on you, Dr. Fair, if you talk about taxes.

Mr. FAIR. I said tax and expenditure, perhaps I should have said tax on expenditure.

Senator GRAHAM. Or in both the conjunctive and the disjunctive?

Mr. FAIR. Right.

Mr. BLINDER. I'd just like to say that most economists would say something similar and, as you say, most politicians would hang up on them when they say it.

Mr. HALE. I'd like to say that we obviously have to address the fiscal problem through a 3 or 4 year program to have credibility in the financial markets. In the absense of that credibility there will be very severe shocks in terms of bond yields and the dollar within weeks after the new President is elected before he even takes office.

In addition to that, on a more positive note, I would also want to begin negotiations with our major allies and trading partners on redeveloping the kinds of programs we had in the late 1960's to compensate the United States for its large international military and political role. Before the breakdown of Bretton Woods in 1971, this country pursued a program called the offset program with Germany, designed to compensate us for our military presence in Europe. It encompassed, agreement by the bundesbank not to convert dollars into gold, which would create downward pressure on the exchange rate. Second, the purchase by the bundesbank of U.S. Treasury bonds bearing below market U.S. interest rates as a quid

pro quo for our defense effort. Third, additional purchases of U.S. defense equipment by the German armed forces in preference over British or French equipment. Finally, direct subsidies to the U.S. military bases in the Federal Republic.

I believe the G–7 process that began under Mr. Baker 2 years ago is now evolving inadvertently into a repeat of that offset program. In fact, you could describe the actions of the Japanese ministry of finance over the last year in terms of its currency intervention and the arm twisting of Japanese life insurance companies to hold onto our bonds even when yields are rising as a kind of informal offset program. As stated in my initial testimony, we have to go beyond this informal ad hoc agreement to something more substantive and comprehensive and I think that is an essential part not only of our adjustment process post election but also of the whole world coming to terms with America's resource constraints and potential overcommitment vis-a-vis its resources.

Mr. DORNBUSCH. I would like to argue also for the fiscal issue as the main problem the next President should address and think about early, not because we are in a fiscal crisis—we certainly don't have one—but because the overheating of the economy at the current rates would bring a collision course between the Federal Reserve and the economy unless the budget gets moved. That may be a half a year or 12 months ahead, but when it does happen, just as in 1969, it is going to be extremely expensive because we have vulnerability today.

I would add that there is virtually no professional economist that disagrees except people who are advising the candidates.

The CHAIRMAN. Do they lose their professionalism because of that?

Mr. DORNBUSCH. For them it's untimely to speak.

The CHAIRMAN. Dr. Dornbusch, supposing the next President of the United States rolls up his sleeves and says, "Look, I've got 100 days," as Roosevelt had back in 1933, "I'm going to make them count. I'm going to do what I think is right. I'm going to, if necessary increase taxes. I'm going to cut spending. I'm going to come in with a program that's going to cut this deficit down in a very few years to a balanced budget."

Do you have any confidence that the Federal Reserve Board could then follow a policy that would not result in a recession and a deep one?

Mr. DORNBUSCH. I'm certainly totally confident that the Federal Reserve could do it and would do it. In fact, from the time of Volcker it's understood that the quid pro quo of budget balancing is that the Federal Reserve sustains growth in the economy.

The CHAIRMAN. You don't have any confidence in McChesney Martin's observation that you can't push a string, referring to monetary policy. No matter what you do with interest rates, if you move into a depression caused by fiscal policy or whatever, the Federal Reserve can't make people borrow if the demand isn't there.

Mr. DORNBUSCH. I see plenty of room on the net export side where easier monetary policy through a gain in competitiveness stimulates growth. We've had it this year and there's plenty of room left. It will force foreign countries to accommodate by being

more expansionary and once that is seen, domestic investment will take place.

The CHAIRMAN. Now I see Mr. Hale nodding. How about you, Mr. Fair and Mr. Blinder, do you agree?

Mr. FAIR. I would agree with that. Remember this is not a crisis. He's got 100 days to make a decision but it's a plan that would be spread out over 3 or more years and that's plenty of time for the Fed to adjust to the changing situation. There are lags and there are some uncertainties and it may be that for a variety of reasons one may have a slowdown, but I think that over that period of time the Fed clearly has the ability and the will to avoid a serious recession.

The CHAIRMAN. Mr. Blinder.

Mr. BLINDER. I agree qualitatively, but I'm not quite as confident in the Fed as Rudi Dornbusch is. He counts on the Fed much more unequivocably than I ever would.

The other thing I want to add is that the fiscal contraction we're talking about is not such a cataclysmic event that it's guaranteed to tip off a recession. It's the kind of thing that can and should be done gradually. We're probably talking about something on the order of three quarters of a percent of GNP per year for 4 years, something like that.

The CHAIRMAN. But what you're counting on is offsetting spending by the private sector and borrowing by the private sector at a time when the private sector is up to its eyeballs in debt.

Mr. BLINDER. Well, some of this will be coming from foreigners buying our goods. It's not mostly replacement by——

The CHAIRMAN. Let's get into that. Mr. Hale pointed out that the real interest rate is the lowest in this decade. Now at a time when we do have very, very high private debt and very high business debt and very low savings, it would seem to me that a low interest rate policy would tend to aggravate this situation. All you do is you shift the living beyond your means more heavily from the Government to the private sector, don't you?

Mr. BLINDER. No. I think a low interest rate policy—remember, we're talking about compensatory monetary policy—a low interest rate policy is going to ease all of the debt crises while a spike in interest rates is going to exacerbate them greatly. The evidence is that the choice between savings and consumption is very insensitive to interest rates. So we wouldn't expect any large change in the consumption behavior of Americans.

The CHAIRMAN. That may well be, but certainly home buying, spending on buying a home, spending on buying cars, is very sensitive to interest rate changes. If the interest rate is down, people will borrow money and buy homes or borrow money and buy automobiles and so forth and if interest rates go up they tend to reduce that kind of spending and dissaving. Isn't that right?

Mr. BLINDER. Yes, that's right. But I think that, given the state of the economy we have now, which is pretty near full employment, a lot of that would be substitution from other types of savings. Prices would adjust to make it so.

The CHAIRMAN. Mr. Blinder, let me ask you this. Is it international responsible policy to reduce the value of the dollar so that we can increase our exports and decrease our imports at a time

when we have 5.3 percent unemployment and in Europe it's 11 percent unemployment. They're practically at depression level in Europe. The strongest economy in Europe, Germany, has 9.5 percent unemployment. In Ireland, it's 20 percent. In Spain, it's 19 percent. In Italy, it's 14 percent. How responsible is it for us to in effect aggravate that kind of a situation when our unemployment is so low?

Mr. BLINDER. Well, I think it's very responsible. I think the situation in Europe is largely the Germans' doing and not our doing. To the extent that a further drop in the dollar, if we have a further drop in the dollar, serves as a swift kick in the pants to the Bundesbank, the entire world will be better off.

The CHAIRMAN. I can see how the German policy would have that kind of effect on West Germany, but why should it have that much of an effect on the United Kingdom and on Italy and the other economies of Europe?

Mr. BLINDER. Because the EMS is functioning more or less as a way to spread the German monetary policy all over Europe, because the other countries have to more or less keep their currencies on par with the mark.

The CHAIRMAN. Do you agree with that, Mr. Hale?

Mr. HALE. I would say that the bundesbank is one factor but probably far less important than supply side factors such as labor market rigidities in the case of Britain and France, trade union rules, plant closure laws that make it expensive to create new jobs and hire people. There's a whole range of labor market policies in Europe which have been identified and amply documented in a number of studies and books which you can get right here in Washington that explain that Europe's unemployment rate has been rising for over a decade because of these rigidities, and monetary policy has played a role but it's by no means the central part of the process. I would say the German monetary policy has tried to be responsible over the last few years in the face of barriers and problems that are out of the bundesbank's control.

Because of that supply side rigidity, I think that if we do, as it were, export more to Europe, we in fact will create circumstances that might lead to some policy changes that would lower unemployment. In fact, in the past year or two, the British economy has begun to improve quite dramatically not only in terms of growth but also unemployment because of changes in policy designed to correct these rigidities so that their unemployment now is approaching that of the Eastern United States.

Let me just amplify your previous question. The reason we need fiscal restraint is that we are resource constrained. None of us here are recommending a recession. What we're recommending is a long period of moderate growth reflecting full employment, which I think is the ideal outcome.

The CHAIRMAN. My time is up. Senator Sasser.

Senator SASSER. Thank you very much, Mr. Chairman.

Two comments. One, Mr. Hale was indicating that we ought to get back into an offset program with our allies around the world where they help offset some of our military expenditures. I think that certainly is happening, if I may comment on that—it's certainly happening with a vengeance. You have only to follow Secretary

Carlucci's travels to Japan and Assistant Secretary Taft's travels to Europe to see the stipulations that have been put on the appropriations bills here in the Senate requiring increased burden sharing on the part of our allies. So I think we're making a strong effort to move down that road for better or worse.

BUDGET DEFICIT

One quick question. Dr. Dornbusch indicated one of his comments that he said we certainly don't have any fiscal crisis in this country. You didn't mean to infer by that I'm sure that nonconcern about the budget deficit and are we overly concerned here in the Congress about budget deficits?

Mr. DORNBUSCH. Well, the Congress is certainly not sufficiently concerned.

Senator SASSER. We say the administration is not sufficiently concerned.

Mr. DORNBUSCH. We do not have the problem that tomorrow morning bond buyers will not absorb what the Treasury issues in debt. The debt income ratio is rising very, very moderately. In that sense, there is no fiscal crisis and nothing will happen.

There is a fiscal crisis because the economy is overheating and the right policy mix is low interest rates and a tight budget. With that policy mix, you can have another 5 years of growth. Without that policy mix, you will have problems and big problems from the financial side.

Senator SASSER. Do we all agree that we would be better off with expansive monetary policy and a tight fiscal policy.

Mr. DORNBUSCH. Yes.

Mr. BLINDER. Certainly.

Senator SASSER. While we've got all this brainpower here, Mr. Chairman, why don't we get them to do some of our work for us. We've got a problem here with the thrift industry. The General Accounting Office told us that their estimate of the deficit in the FSLIC is $30 to $40 billion, when they testified here a couple weeks ago. Now they're saying it's up an additional $10 billion. Some experts are telling us that the liability of the FSLIC could be as much as $65 billion, whereas the best estimates of income over the next few years is about $20 billion. So we have a little shortfall there of somewhere in the neighborhood of $40 billion.

RECOMMENDATIONS ABOUT THE THRIFT INDUSTRY

What would these distinguished economists—what recommendations would they have to make to us or the incoming administration about what to do with regard to the thrift industry? Who's going to pay this deficit? How should we handle it?

Mr. DORNBUSCH. If this was LDC debt, you would say the Japanese. [Laughter.]

Mr. BLINDER. I think in all likelihood, the taxpayer. The actions Congress will take will make the taxpayer pay for a lot of it. As you look toward the longer term, however, some reform of deposit insurance is probably—not probably, definitely—called for. There has been a well-documented tendency for teetering thrifts to lay off the risks on the taxpayer by going for broke; something needs to be

done about that. But that in no way is going to get us out of the current crisis.

Another way to make the point you were making is to note that many of these thrifts would have negative net worth if they marked their portfolios to market today. That's the legacy of the past. That bill is, either gradually or quickly, landing in the taxpayers' lap.

Senator SASSER. Well, you know we're fresh out of cash around here.

Mr. BLINDER. You can print it, unlike the thrifts.

Mr. HALE. I think there's no alternative but to have government relief paid for by the taxpayers in the short term, given the magnitude of the problem. But I think this problem reflects a breakdown in our regulatory process. There's a lot said in this town today about financial deregulation and how it works its way through our business sector.

Senator SASSER. I couldn't agree more.

Mr. HALE. We're going to have to create a self-funding financial regulatory process financed by taxation on the financial sector which employs highly sophisticated, very highly paid, elite people who can stay on top of financial innovation or in this case the thrift industry financial fraud, and make sure it doesn't happen again in the 1990's. I cannot believe that over the course of the 1980's we actually reduced our Comptroller of the Currency's field examination staff by 10 percent. The conduct of financial regulation in this country in the 1980's has been a scandal. We need institutional changes that are self-financing through industry taxation, like we do in other industries.

Senator SASSER. One final question. My time has expired. But in our rush to deregulate the savings and loan industry and airlines and other matters, we've reaped a bitter harvest to a certain extent. Are we making the same mistake in moving down the line of deregulation of the banking industry? Does anybody on this panel want to express an opinion on that thorny question?

Mr. HALE. There has to be deregulation because technology is changing, the world financial marketplace is changing, and there's no way that our banks can remain static because of the reduced cost of trading through computerization and the movement toward securitization globally as a consequence of these new capital asset ratios. We cannot stay in the past.

What we need, though, as I indicated, is a new method of regulation funded in a more adequate way by taxation of the industry, but I would add with regulatory agencies staffed by very high quality people. We can no longer have the kind of turnover, lack of professionals, that we've had in the 1980's continue into the 1990's because the scope of the problem will get larger rather than smaller as we integrate our investment banks and our commercial banks and as they play not only a domestic role but also a global role.

Senator SASSER. What do the academicians say about that?

Mr. FAIR. I don't have much to add. The problem with the thrifts is that the regulation was the wrong kind; we were encouraging risk-taking on their part. That doesn't argue necessarily that we should stop deregulation. It just means that we want to make sure

whatever we do we don't impose these kind of regulations that encourage this excessive risk-taking at the expense of the taxpayers.

I would think that we should continue the deregulation at this point.

Mr. DORNBUSCH. I would go in the same direction that you can't stop deregulation, but at the same time you have to add an enormous amount of new regulation that takes account of the activities that are being pursued now and much higher capital requirements in order to discourage the speculation on the taxpayers.

Mr. BLINDER. I agree. The technology and world competition, which are interrelated, are driving us inexorably in this direction. I think the important thing for Congress to think of in writing new laws is the principle—and this is a principle, not a legislative proposal—that what needs to be done is to build a wall between the depositors and whatever kinds of equity involvement banks are going to have. Then whatever goes on on one side of the ledger does not jeopardize the safety of the deposits and, at the same time, doesn't just lay off these risks on the taxpayer. That would mean some pricing of deposit insurance to reflect the risks that are taken, or something like that.

The CHAIRMAN. Senator Graham.

Senator GRAHAM. Going back to my question of what you would put on the agenda for the next President during the period between the election and inauguration, what would you recommend the new President commence planning for as it relates to the management of Third World debt?

THIRD WORLD DEBT

I noticed Hobart Rowan in the Post on Sunday had a column which sort of did some second guessing of the recent Toronto Summit and was more critical than the initial stories, saying effectively the summit had brushed off the difficult issues and felt that the next summit of the new president was going to have an especially challenging time with Third World debt being the most serious and the most overlooked and unexamined and undealt with residue of the Toronto Summit.

Mr. DORNBUSCH. I would say that certainly Third World debt is the major issue for our financial industry and politically for the United States. I think the trick is to find a solution that is not squarely on the taxpayer. The taxpayer is already in, but you do want to minimize that.

My own view is that the best way to do it—and Mexico is probably a good example—is to encourage the reinvestment of interest payments in the debtor countries forcing them in their budgets to actually make the payments but not to take them out in trade surpluses, but rather to reinvest them. In that way we make those economies financially viable again and draw in repatriation of their own capital. Then later—5, 6, 7 years, whatever—we can start taking the money out.

If we fail to do that, then the taxpayer is in in a major way because if Mexico today, after doing everything right—except the vote counting—does not have growth, then of course, there's a major political issue on our border.

So recycling of interest payments, I think, is the most conservative way and the best economic way of handling it. Bringing in the taxpayer is very hard to imagine given the size of the problem.

I would add, if I may, that there is today enormous diversity between countries. Brazil is messed up by poor domestic policy with the debt problem a minor issue in their high inflation, and Mexico by contrast all adjustments have been done. So I would not see that there's any room for a uniform, across-the-board solution, at least not a sensible one.

Senator GRAHAM. Any other comments?

Mr. HALE. Rudy's comments are correct. We cannot expect much in a large country like Mexico in the face of what they just experienced in their election and also the economic challenge that will lie ahead.

Also, I would add that the stock market itself has made a major adjustment for these loans. The academic work suggests that the stock market is already effectively valuing them at half their apparent book value and therefore in a sense we've already had a major hit on bank shareholders. If we would divide up this discount or this loss among the various parties, we could perhaps get a benign outcome if we can get, as Rudy suggested, policies in the beneficiaries which are encouraging growth and to developing financial markets so as to get capital transfers not just in debt but through equity in the 1990s.

Senator GRAHAM. Thank you, Mr. Chairman.

The CHAIRMAN. Well, thank you, gentlemen, very much for an excellent lesson on what we should do in the next 4 years. We appreciate your testimony.

[Whereupon, at 12:05 p.m., the hearing was adjourned.]

FEDERAL RESERVE'S SECOND MONETARY POLICY REPORT FOR 1988

WEDNESDAY, JULY 13, 1988

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING,
AND URBAN AFFAIRS,
Washington, DC.

The committee met at 10:10 a.m. in room SD-538, Dirksen Senate Office Building, Senator William Proxmire (chairman of the committee) presiding.

Present: Senators Proxmire, Riegle, Dixon, Sasser, Shelby, Wirth, Graham, Garn, Heinz, D'Amato, Hecht, Gramm, Bond, and Chafee.

OPENING STATEMENT OF CHAIRMAN PROXMIRE

The CHAIRMAN. The committee will come to order.

Chairman Greenspan, I apologize for my tardiness and the fact that other members will be late. There's a vote going on on the floor and members will come in later than they usually do.

We're looking forward eagerly to this hearing this morning. It's a very, very important hearing for our committee and for the Congress. There are few things more critical with respect to our economy in the future than monetary policy and the policies adopted by the Federal Reserve.

This morning Chairman Greenspan is before the committee to discuss the outlook for the economy and monetary policy. Chairman Greenspan, the task of setting monetary policy in this high speed world of international capital mobility is a highwire act worthy of the great Walinda, and so far you seem to be a good rival for Walinda.

The U.S. economy is undergoing a profound transformation from an economy based on consumption-led growth to an export-led growth economy. On the one hand, capacity utilization is high and labor markets are increasingly tight. Both of these indicators suggest that inflation is beginning to reemerge. Fears of more vigorous inflation and a precipitous decline in the dollar make easing of monetary policy quite risky.

On the other side, huge accumulations of debt make our financial system quite fragile. Business debt, Government debt, consumer debt of all sort in recent years and by almost any measure are very, very high. The debt accumulation, the crisis in the Savings and Loan industry, problems of debt service in Latin America and the agricultural crisis combine to raise the costs associated with a further significant rise in interest rates.

All appears calm at the moment. I fear that calm is precisely that—momentary. The dollar is rising despite our continued massive trade deficits. The Federal Reserve has gradually raised rates since March and the last couple of trade statistical announcements have been good news.

What will happen when the next disappointing trade number is announced? What will happen as institutional investors begin to reallocate their assets later this summer, each trying to beat the market to the draw before the new administration can change the course of macroeconomic policy?

What I fear is that the overhang of problems on our economy and the Presidential election, when all six members of the Federal Reserve Board are Republican Reagan appointees, will lead the Fed to be insufficiently strong in fighting inflation. This lack of will to face inflation at the outset will not remedy our structural problems; it will only postpone them.

Having said that, let me say that yesterday we had four eminent economists and experts. We chose them because we thought they were among the most prestigious and highly respected economists in the country and experts in monetary policy and, in general, they gave you high marks. There were no criticisms of the conduct of the Federal Reserve to date.

They also indicated that the book is pretty much in on monetary policy, that there's not much you can do now that's going to have much effect because of the lag before the election anyway.

Avoiding a battle against an overheating economy will lead to a rise in inflation that will be very costly and painful to wring out of the system just as it was in the early 1980's. The difference is that next time we go through wrenching disinflation, we will do it on the back of all the financial problems that exist today.

If the Federal Reserve does not show the resolve to keep inflation down, it will make things more comfortable temporarily, but in the long run we will all pay the price. An ounce of prevention is, in this case, worth a pound of cure.

The Nation's economic vitality depends upon a coherent and stable monetary policy. To facilitate congressional oversight of the process and to provide greater information to the public on the formation of monetary policy I encourage the Federal Reserve to narrow the target ranges on its monetary policy projections. The law explicitly does not require the Federal Reserve to adhere to the publicized targets, so there's no cost to providing more precise estimates of your intentions.

At the same time, precise targets give us better information on the Federal Reserve's intentions and a better way to measure the performance of the central bank after the fact. Market participants can make their plans with less uncertainty. Furthermore, at future hearings you can come back and explain any deviations from your projected path for monetary growth so we can all better understand this complicated process of monetary policy making.

Senator Garn.

Senator GARN. Thank you, Mr. Chairman. I have no opening statement. I'm pleased to have Chairman Greenspan here today and look forward to his testimony.

The CHAIRMAN. Senator Dixon.

Senator DIXON. I'll place my statement in the record. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Dixon. I also have a statement from Senator Chafee to be inserted in the record.

STATEMENT OF SENATOR ALAN J. DIXON

Senator DIXON. Mr. Chairman, I am pleased to be here this morning as the Banking Committee continues its oversight of monetary policy and other economic issues of crucial importance to our economic future. I look forward to hearing the testimony of the distinguished Chairman of the Federal Reserve Board, Alan Greenspan.

At the moment, we seem to have a sort of "good news, bad news" kind of economy. Unemployment is down to the lowest point in at least 14 years, our trade deficit is finally starting to go down, and economic growth is strong. However, persistent fears about a resurgence of inflation seemingly cannot be put to rest.

Our financial markets seem to fear every bit of economic good news; they find the black cloud behind every silver lining. There are those who claim that these fears are irrational, and that strong, noninflationary, GNP growth can continue indefinitely. I would like to believe that, but I cannot. We have serious structural problems that we must deal with if we are to ensure a sound economic future for our economy. We must bring Federal budget deficits under control and we must address the international balance of payments problems that have made the United States the world's largest debtor nation.

Monetary policy cannot accomplish these tasks alone. If we continue the kind of contradictory economic policies that have charactorized our recent past, then it is only a question of time before interest rates begin to rise, inflation reoccurs, and economic growth evaporates.

We have a strong, resilient economy that is capable of tolerating substantial abuse. But the economy's capacity to absorb the punishment caused by unwise economic policies is not limitless. The Federal Reserve cannot reverse the damage caused by past economic mistakes by itself. The executive branch and the Congress must coordinate their efforts with those of the Fed if we are to prevent the economic day of reckoning that we will otherwise surely face.

Thank you, Mr. Chairman.

STATEMENT OF SENATOR JOHN H. CHAFEE

Senator CHAFEE. Mr. Chairman, it is a pleasure to welcome Chairman Greenspan back to this committee. His decisions and actions have been a helpful factor in keeping this country on an even keel. I salute him for that.

Today's hearing, with Chairman Greenspan's commentary on U.S. monetary policy, is very timely. For monetary policy has become increasingly important for two reasons.

First, fiscal policy threatens to become stuck as an effective operational level of broad financial policy. If so, the hoped for benefits achievable from significant reductions in the Federal budget deficit

would be minimized. This is especially true when the effect of the Social Security surplus is noted.

Second, the growth of the international sector will constrain the Federal Reserve's ability to focus exclusively on U.S. inflation and interest rates. The value of the U.S. dollar and its effect on U.S. exports and foreign imports, U.S. dollar-denominated Third World debt, and increasing foreign ownership of U.S. Treasury securities, will all have to be factored in. For example, higher U.S. interest rates to counteract expected higher U.S. inflation will cause the dollar to rise, making it more difficult for U.S. companies to export and increasing the interest owed by developing countries on their debt, thereby reducing their ability to import U.S. products.

What then becomes the chief priority of the Federal Reserve, especially given the probable inflexibility of fiscal policy? And what are the Federal Reserve's obligations to foreign countries which do not seem to be shouldering their respective obligations to keep world trade flowing?

Fortunately, the Federal Reserve currently has some room for maneuver, operating in an reasonably enviable environment by recent historical standards. The United States is in the 61st month of continuous growth, and the bouyancy of the economy is confounding even the most ardent naysayers. The unemployment rate has fallen to 5.3%, the lowest since 1974. Inflation hovers below 4%, and the recovering U.S. dollar and low energy prices will help keep that in check. Nevertheless, $200 billion Federal budget deficits financed abroad, $150 billion trade deficits, the potential effects of the drought on prices—all point out that much work still remains to be done.

I look forward to the testimony of Chairman Greenspan.

Thank you, Mr. Chairman.

The CHAIRMAN. Senator D'Amato.

Senator D'AMATO. Mr. Chairman, I'd like to take the opportunity to raise and touch on another matter with the chairman and with the committee as it relates to another issue. I think you know what that issue is.

The CHAIRMAN. I sure do.

Senator D'AMATO. It's a matter of a hearing that was supposed to be held tomorrow and was canceled, and I find it rather difficult to understand when 14 cosponsors of a bill and this Senator having received a promise and a commitment for that hearing, not even being notified personally about it, and I was wondering if the chairman would reconsider. So I say I'd like to discuss that matter after we hear the Chairman's testimony.

The CHAIRMAN. Thank you, Senator D'Amato.

Mr. Chairman, go right ahead, sir.

STATEMENT OF ALAN GREENSPAN, CHAIRMAN, BOARD OF GOVERNORS, FEDERAL RESERVE SYSTEM

Mr. GREENSPAN. Thank you very much, Mr. Chairman.

Mr. Chairman and members of the committee, I appreciate this opportunity to review with you recent and prospective monetary policy. I will excerpt from my prepared remarks, but request that the full text be included in the record.

The CHAIRMAN. Without objection, it will be printed in full in the record.

ECONOMIC SETTING AND MONETARY POLICY SO FAR IN 1988

Mr. GREENSPAN. The macroeconomic setting for monetary policy has changed in some notable respects since I testified last February. At that time, the full after-effects of the stock market plunge on spending and financial markets were still unclear. While most Federal Open Market Committee members were forecasting moderate growth, in view of rapid inventory building and some signs of a weakening of labor demand, the possibility of a decline in economic activity could not be ruled out. To guard against this outcome, in the context of a firmer dollar on exchange markets, the Federal Reserve undertook a further modest easing of reserve pressures in late January, which augmented the more substantial easing following October 19. Short-term interest rates came down another notch, and with a delay helped to push the monetary aggregates higher within their targeted annual ranges.

In the event, the economy proved remarkably resilient to the loss of stock market wealth. Economic growth remained vigorous through the first half of the year.

As the risks of a faltering economic expansion and further financial market disruptions diminished, the dangers of intensified inflationary pressures reemerged. Utilization of labor and capital reached the highest levels in many years, and hints of acceleration began to crop up in wage and price data. Strong gains in payroll employment that continued through the spring combined with slower growth in the labor force to lower the unemployment rate by about 1/4 percentage point, even before the strong labor market report for June; the industrial capacity utilization rate moved up as well.

In these circumstances, the Federal Reserve was well aware that it should not fall behind in establishing enough monetary restraint to effectively resist these inflationary tendencies. The System took a succession of restraining steps from late March through late June. The shortest-term interest rates gradually rose to levels now around highs reached last fall. Responding as well to the unwinding of a tax-related buildup in liquid balances, M2 and M3 growth slowed noticeably after April.

In contrast to the shortest-maturity interest rates, long-term bond and mortgage rates, though also above February lows, still remain well below last fall's peaks. The timely tightening of monetary policy this spring, along with perceptions of better prospects for the dollar in foreign exchange markets in light of the narrowing in our trade deficit, seemed to improve market confidence that inflationary excesses would be avoided. Both bond prices and the dollar rallied in June despite increases in interest rates in several major foreign countries and jumps in some agricultural prices resulting from the drought in important growing areas.

ECONOMIC OUTLOOK AND MONETARY POLICY THROUGH 1989

The monetary actions of the first half of the year were undertaken so that economic expansion could be maintained, recognizing

that to do so, additional price pressures could not be permitted to build and progress toward external balance had to be sustained. The projections of FOMC members and nonvoting presidents indicate that they do expect economic growth to continue, and inflation to be contained.

The 2¾ to 3 percent central tendency of FOMC members' expectations for real GNP growth over the four quarters of this year implies a deceleration over the rest of the year to a pace more in line with their expected 2 to 2½ percent real growth over 1989 and with the long-run potential of the economy.

Although the month-to-month pattern in our trade deficit can be expected to be erratic, the improvement in the external sector on balance over time is expected to replace much of the reduced expansion in domestic final demands from our consumer, business, and government sectors.

Employment growth is anticipated to be substantial, though some updrift in the unemployment rate may occur over the next year and a half. Capacity utilization could well top out soon, as growth in demands for manufactured goods slows to match that of capacity.

Considering the already limited slack in available labor and capital resources, a leveling of the unemployment and capacity utilization rates is essential if more intense inflationary pressures are to be avoided in the period ahead. Otherwise, aggregate demand would continue growing at an unsustainable pace and would soon begin to create a destabilizing inflationary climate. Supply conditions for materials and labor would tighten further and costs would start to rise more rapidly; businesses would attempt to recoup profit margins with further price hikes on final goods and services. These faster price rises would, in turn, foster an inflationary psychology, cut into workers' real purchasing power, and prompt an attempted further catchup of wages, setting in motion a dynamic process in which neither workers nor businesses would benefit. The hard-won gains in our international competitiveness would be eroded, with feedback effects depressing the exchange value of the dollar. Excessive domestic demands and inflation pressures in this country, with its sizable external deficit, would be disruptive to the ongoing international adjustment of trade and payments imbalances.

Not only the reduced slack in the economy but also several prospective adjustments in relative prices have accentuated inflation dangers. One is the upward movement of import prices relative to domestic prices, which is a necessary part of the process of adjustment to large imbalances in international trade and payments. Another is the recent drought-related increases in grain and soybean prices. It is essential that we keep these processes confined to a one-time adjustment in the level of prices and not let them spill over to a sustained higher rate of increase in wages and prices.

The costs to our economy and society of allowing a more intense inflationary process to become entrenched are serious. As the experience in the past two decades has clearly shown, accelerating wages and prices would have to be countered later by quite restrictive policies, with unavoidably adverse implications for production and employment. The financial health of many individual and busi-

ness debtors, as well as of some of their creditors, would then be threatened. The long-run costs of a return to higher inflation and the risks of this occurring under current circumstances are sufficiently great that Federal Reserve policy at this juncture might be well advised to err more on the side of restrictiveness rather than of stimulus.

We believe that monetary policy actions to date, together with fiscal restraint embodied in last fall's agreement between the Congress and the administration, have set the stage for containing inflation through next year. The central tendency of FOMC members' expectations for inflation in the GNP deflator ranges from 3 to 3¾ percent over this year and 3 to 4½ percent next year.

The FOMC believes that efforts to contain inflation pressures and sustain the economic expansion would be fostered by growth of the monetary aggregates over 1988 well within their reaffirmed 4 to 8 percent annual ranges, followed by some slowing in money growth over the course of next year.

The debt of nonfinancial sectors, which so far this year has been near the midpoint of its reaffirmed 7 to 11 percent monitoring range, is anticipated to post similar growth through year-end.

For 1989, the FOMC has underscored its intention to encourage progress toward price stability over time by lowering its tentative ranges for money and debt. We have preliminarily reduced the growth range for M2 by 1 full percentage point to 3 to 7 percent. We have adjusted the tentative 1989 range from M3 downward by ½ a percentage point to a 3½ to 7½ percent range. This configuration is consistent with the observed tendency for M3 velocity over time to fall relative to the velocity of M2; over the last decade, the Federal Reserve's ranges frequently allowed for faster growth of M3 than of M2. The monitoring range for domestic nonfinancial debt for 1989 also has been lowered ½ percentage point to a tentative 6½ to 10½ percent range.

The specific ranges chosen for 1989 are, as usual, provisional, and the FOMC will review them carefully next February in light of intervening developments. Anticipating today how the outlook for the economy in 1989 will appear next February is difficult, and a major reassessment of that outlook would have implications for appropriate money growth ranges for that year.

As the aggregates have become more responsive to interest rate changes in the 1980s, judgments about possible ranges for the next year necessarily have become even more tentative and subject to revision.

PERSISTENT U.S. EXTERNAL AND FISCAL IMBALANCES

Despite the changes in the economic setting over the last 6 months, other features of the macroeconomic landscape remain much the same. Most notable are the continuing massive deficits in our external payments and internal fiscal accounts. As a nation, we still are living well beyond our means. We consume much more of the world's goods and services each year than we produce. Our current account deficit indicates how much more deeply in debt to the rest of the world we are sliding each year.

The consequence of this external imbalance will be a steady expansion in our external debt burden in the years ahead. No household or business can expect to have an inexhaustible credit line with borrowing terms that stay the same as its debt mounts relative to its wealth and income. Nor can we as a nation expect our foreign indebtedness to grow indefinitely relative to our servicing capacity without additional inducements to foreigners to acquire dollar assets—either higher real interest returns, or a cheaper real foreign exchange value for dollar assets, or both. To be sure, such changes in market incentives would have self-correcting effects over time in reducing the imbalance between our domestic spending and income. Higher real interest rates would curtail domestic investment and other spending. A lower real value of the dollar would make U.S. goods and services relatively less expensive to both United States and foreign residents, damping our spending on imports out of U.S. income and boosting our exports.

But simply sitting back and allowing such a self-correction to take place is not a workable policy alternative. Trying to follow such a course could have severe drawbacks now that our economy is operating close to effective capacity and potential inflationary pressures are on the horizon. The time is hardly propitious to discourage investment in needed plant and equipment, to add further impulses for import price hikes on top of the upward tendencies already in the making, or to push our export industries as well as import-competing industries to their capacity limits.

Fortunately, we have a better choice for righting the imbalance between domestic spending and income—one over which we have direct control. That is to resume reducing substantially the still massive Federal budget deficit, which remains the most important source of dissaving in our economy. The fall in the dollar we have already experienced over the last few years, even allowing for the dollar's appreciation from the lows reached at the end of last year, has set in motion forces that should continue to narrow our trade and current account deficits in the years ahead. The associated loss of foreign-funded domestic investment is likely to adversely affect overall investment unless it can be replaced by greater domestic investment financed by domestic saving. A sharp contraction in the Federal deficit appears to be the only assured source of augmented domestic net saving. Such a fiscal cutback should help counter future tendencies for further increases in U.S. interest rates and declines in the dollar, partly by instilling confidence on the part of international investors in the resolve of the United States to address its economic problems.

In terms of Federal deficit reduction, the schedule under the Gramm-Rudman-Hollings law is a good baseline for a multiyear strategy, and I trust the Congress will stick with it. But we should go further. Ideally, we should be aiming ultimately at a Federal budget surplus so that Government saving could supplement private domestic saving in financing additional domestic investment.

The strategy for monetary policy needs to be centered on making further progress toward and ultimately reaching stable prices. Price stability is a prerequisite for achieving the maximum economic expansion consistent with a sustainable external balance and high employment. Price stability reduces uncertainty and risks

in a critical area of economic decision making by households and businesses.

By price stability, I mean a situation in which households and businesses in making their saving and investment decisions can safely ignore the possibility of sustained, generalized price increases or decreases. Prices of individual goods and services, of course, would still vary to equilibrate the various markets in our complex national and world economy, and particular price indexes could still show transitory movements. Essentially, the average of all prices would exhibit no trend over time.

In the process of fostering price stability, monetary policy also would have to bear much of the burden for countering any pronounced cyclical instability in the economy, especially if fiscal policy is following a program for multiyear reductions in the Federal budget deficit. While recognizing the self-correcting nature of some macroeconomic disturbances, monetary policy does have a role to play over time in guiding aggregate demand into line with the economy's potential to produce. This may involve providing a counterweight to major, sustained cyclical tendencies in private spending, though we cannot be overconfident in our ability to identify such tendencies and to determine exactly the appropriate policy response. In this regard, it seems worthwhile for me to offer some thoughts on the approach the Federal Reserve should take in implementing this longer-term strategy for monetary policy.

APPROPRIATE TACTICS FOR MONETARY POLICY

For better or worse, our economy is enormously complex, the relationships among macroeconomic variables are imperfectly understood, and as a consequence economic forecasting is an uncertain endeavor. Nonetheless, the forecasting exercise can aid policymaking by helping to refine the boundaries of the likely economic consequences of our policy stance. But forecasts will often go astray to a greater or lesser degree and monetary policy has to remain flexible to respond to unexpected developments.

A perfectly flexible monetary policy, however, without any guideposts to steer by, can risk losing sight of the ultimate goal of price stability. In this connection, the requirement under the Humphrey-Hawkins Act for the Federal Reserve to announce its objectives and plans for growth of money and credit aggregates is a very useful device for calibrating prospective monetary policy. The announcement of ranges for the monetary aggregates represents a way for the Federal Reserve to communicate its policy intentions to the Congress and the public.

The CHAIRMAN. Mr. Chairman, I apologize. This is an excellent statement, but it's so rare that this committee or any committee for that matter has a quorum present that I'm going to take advantage of it. We have a number of nominees that we would like to act on. It's very important that we act promptly, including one who will join you on the Federal Reserve Board, John LaWare.

We also have Timothy Coyle, of California, to be an Assistant Secretary of Housing and Urban Development; Jack Stokvis, of New York, to be an Assistant Secretary of Housing and Urban Development; and James Werson, of California, to be a Member of the

Board of Directors of the National Corporation for Housing Partnerships.

Because of the urgency of this matter and because we have to move it along as soon as we possibly can—we have had an extensive hearing, of course, on Mr. LaWare and, in my judgment, he was very impressive and I hope that the committee can act on that nomination now.

Senator GARN. Mr. Chairman, I would move that we act on all of the nominees en bloc.

The CHAIRMAN. Any discussion? Any objection?

[No response.]

The CHAIRMAN. Without objection, the committee will act on the nominees en bloc. All in favor signify by saying "Aye."

[A chorus of "Ayes."]

The CHAIRMAN. Opposed?

[No response.]

The CHAIRMAN. The nominees will be reported to the floor of the Senate.

Senator GRAMM. Mr. Chairman.

The CHAIRMAN. Senator Gramm.

Senator GRAMM. Mr. Chairman, I'd just like to make note of the fact that I don't think any committee chairman in the U.S. Senate has done more than you have done to move appointments forward, and I just want to congratulate you for it and thank you.

The CHAIRMAN. Well, thank you very much, Senator Gramm. There's nobody who's support I'd rather have than yours, or whose opposition I would less like to have than yours. [Laughter.]

Senator GRAMM. Then you agree with me and I appreciate it.

Senator WIRTH. Mr. Chairman.

The CHAIRMAN. Senator Wirth.

Senator WIRTH. Just let me very briefly associate myself with Senator Gramm's remarks and also commend you on moving on Mr. LaWare's appointment. It's a long appointment I know and I think it's the right thing for us to do and I appreciate your stepping into that as well. Thank you very much.

The CHAIRMAN. Thank you, Senator Wirth.

Senator HECHT. Mr. Chairman, I just have a short statement on Mr. Coyle which I'll put into the record.

The CHAIRMAN. Without objection, it will be printed in full in the record.

Senator HECHT. Thank you.

Mr. Chairman, I would like to take this opportunity to commend Mr. Coyle on the fine job he has done to this date and would also like to voice my strong support for his nomination to the position of Assistant Secretary of Housing and Urban Development. I believe he is amply qualified to fill this spot and would be an asset to both HUD and the Nation.

Thank you, Mr. Chairman.

The CHAIRMAN. Chairman Greenspan, I apologize. Go right ahead, sir.

Mr. GREENSPAN. Let me just say, Mr. Chairman and members of the committee, I very much appreciate your expediting the nomination of our new Board member. I'm really sure he will serve the country well. I think he's a first-rate appointment and hope he

moves through the Senate as expeditiously as he has done this morning.

If I may continue, I just have a few more remarks to make for the record.

The CHAIRMAN. Go right ahead.

Mr. GREENSPAN. The undisputed long-run relation between money growth and inflation means that trend growth rates in the monetary aggregates provide useful checks on the thrust of monetary policy over time. It is clear to all observers that the monetary ranges will have to be brought down further in the future if price stability is to be achieved and then maintained.

But, in a shorter-run countercyclical context, monetary aggregates have drawbacks as rigid guides to monetary policy implementation. As I discussed in some detail in my February testimony, financial innovation and deregulation in the 1980's have altered the structure of deposits, lessened the predictability of the demands for the aggregates, and made the velocities of M1 and probably M2 over periods of a year or so more sensitive to movements in market interest rates.

Nonetheless, the demonstrated long-run connection of money and prices overshadows the problems of interpreting shorter-run swings in money growth. I certainly don't want to leave the impression that the aggregates have little utility in implementing monetary policy. They have an important role, and it is quite possible that their importance will grow in the years ahead. Currently, the FOMC keeps M2 and M3 under careful scrutiny, and judges their actual movements relative to assessments of their appropriate growth at any particular time. In this context, these aggregates are among the indicators influencing adjustments to the stance of policy. At times in recent years, we have intensively examined the properties of several alternative measures.

An analysis of the monetary base appears as an appendix to the Board's Humphrey-Hawkins report.

Although the monetary base has exhibited some useful properties over the last three decades as a whole, the FOMC's view is that its behavior has not consistently added to the information provided by the broader aggregates, M2 and M3. The committee accordingly has decided not to establish a range for this aggregate, although it has requested staff to intensify research into the ability of various monetary measures to indicate long-run price trends.

Because the Federal Reserve cannot reliably take its cue for shorter-run operations solely from the signals being given by any or all of the monetary aggregates, we have little alternative but to interpret the behavior of a variety of economic and financial indicators. They can suggest the likely future course of the economy given the current stance of monetary policy.

Judgments about the balance of various risks to the economic outlook need to adapt over time to the shifting weight of incoming evidence; this point is well exemplified so far this year, as noted earlier. The Federal Reserve must be willing to adjust its instruments fairly flexibly as these judgments evolve; we must not hesitate to reverse course occasionally if warranted by new developments. To be sure, we should not overreact to every bit of new information because the frequent observations for a variety of eco-

nomic statistics are subject to considerable transitory "noise." But we need to be willing to respond to indications of changing underlying economic trends, without losing sight of the ultimate policy objectives.

To the extent that the underlying economic trends are judged to be deviating from a path consistent with reaching the ultimate objectives, the Federal Reserve would need to make "midcourse" policy corrections. Such deviations from the appropriate direction for the economy will be inevitable, given the delayed and imperfectly predictable nature of the effects of previous policy actions. Numerous unforeseen forces not related to monetary policy will continue to buffet the economy. The limits of monetary policy in short-run stabilization need to be borne in mind. The business cycle cannot be repealed, but I believe it can be significantly dampened by appropriate policy action. Price stability cannot be dictated by fiat, but governmental decision-makers can establish the conditions needed to approach this goal over the next several years.

[The complete prepared statement of Mr. Greenspan follows:]

For release on delivery
10:00 a.m., E.D.T
July 13, 1988

Statement by

Alan Greenspan

Chairman, Board of Governors of the Federal Reserve System

before the

Committee on Banking, Housing and Urban Affairs

of the

U.S. Senate

July 13, 1988

Mr. Chairman, and members of the Committee, I appreciate this opportunity to review with you recent and prospective monetary policy and the economic outlook. I would also like to provide a broader perspective by discussing in some detail our nation's longer-term economic objectives, the overall strategy for fiscal and monetary policies needed to reach those objectives, and the appropriate tactics for implementing monetary policy within that strategic framework.

The economic setting and monetary policy so far in 1988.

The macroeconomic setting for monetary policy has changed in some notable respects since I testified last February. At that time, the full after-effects of the stock market plunge on spending and financial markets were still unclear. While most Federal Open Market Committee members were forecasting moderate growth, in view of rapid inventory building and some signs of a weakening of labor demand, the possibility of a decline in economic activity could not be ruled out. To guard against this outcome, in the context of a firmer dollar on exchange markets, the Federal Reserve undertook a further modest easing of reserve pressures in late January, which augmented the more substantial easing following October 19. Short-term interest rates came down another notch, and with a delay helped to push the monetary aggregates higher within their targeted annual ranges.

In the event, the economy proved remarkably resilient to the loss of stock market wealth. Economic growth remained vigorous through the first half of the year. Continuing brisk advances in exports, together with moderating growth in imports, supported expansion in output, especially in manufacturing. Some strengthening also was evident in business outlays for equipment, especially computers, and consumer purchases of durables, including autos.

Financial markets also returned to more normal functioning. Although trading volumes did not regain pre-crash levels in many markets, price volatility diminished somewhat and quality differentials stayed considerably narrower than in the immediate aftermath of the stock market plunge. In response, the Federal Reserve gradually was able to restore its standard procedure of gearing open market operations to the intended pressure on reserve positions of depository institutions. We thereby discontinued the procedure of reacting primarily to day-to-day variations in money market interest rates that had been adopted right after the stock market break.

As the risks of faltering economic expansion and further financial market disruptions diminished, the dangers of intensified inflationary pressures reemerged. Utilization of labor and capital reached the highest levels in many years, and hints of acceleration began to crop up in wage and price data. Strong gains in payroll employment that continued through the spring combined with slower growth in the labor force to lower

the unemployment rate by about 1/4 percentage point, even before the strong labor market report for June; the industrial capacity utilization rate moved up as well. In part reflecting the payroll tax increase, broad measures of hourly compensation picked up somewhat in the first quarter. Prices for a wide range of domestic and imported industrial materials and supplies rose even more steeply than last year. Finished goods price inflation has not reflected this step-up in price increases for intermediate goods, in part as productivity gains kept unit labor costs under control. Even so, continued increases in materials prices at the recent pace were seen as pointing to a potential intensification in inflation more generally, since based on historical experience, such increases have tended to show through to finished good prices.

In these circumstances, the Federal Reserve was well aware that it should not fall behind in establishing enough monetary restraint to effectively resist these inflationary tendencies. The System took a succession of restraining steps from late March through late June. The shortest-term interest rates gradually rose to levels now around highs reached last fall. Responding as well to the unwinding of a tax-related buildup in liquid balances, M2 and M3 growth slowed noticeably after April.

In contrast to the shortest-maturity interest rates, long-term bond and mortgage rates, though also above February lows, still remain well below last fall's peaks. The timely

tightening of monetary policy this spring, along with perceptions of better prospects for the dollar in foreign exchange markets in light of the narrowing in our trade deficit, seemed to improve market confidence that inflationary excesses would be avoided. Both bond prices and the dollar rallied in June despite increases in interest rates in several major foreign countries and jumps in some agricultural prices resulting from the drought in important growing areas.

The economic outlook and monetary policy through 1989.

The monetary actions of the first half of the year were undertaken so that economic expansion could be maintained, recognizing that to do so, additional price pressures could not be permitted to build and progress toward external balance had to be sustained. The projections of FOMC members and nonvoting presidents indicate that they do expect economic growth to continue, and inflation to be contained.

The 2-3/4 to 3 percent central tendency of FOMC members' expectations for real GNP growth over the four quarters of this year implies a deceleration over the rest of the year to a pace more in line with their expected 2 to 2-1/2 percent real growth over 1989 and with the long-run potential of the economy. The drought will reduce farm output for a time, and it is important that nonfarm inventory accumulation slow before long, if we are to avoid a troublesome imbalance. Still, further gains in our international trade position should continue to provide a major stimulus to real GNP growth through next year,

reflecting the lagged effects of the decline in the exchange value of the dollar through the end of last year. Although the month-to-month pattern in our trade deficit can be expected to be erratic, the improvement in the external sector on balance over time is expected to replace much of the reduced expansion in domestic final demands from our consumer, business, and government sectors.

Employment growth is anticipated to be substantial, though some updrift in the unemployment rate may occur over the next year and a half. Capacity utilization could well top out soon, as growth in demands for manufactured goods slows to match that of capacity.

Considering the already limited slack in available labor and capital resources, a leveling of the unemployment and capacity utilization rates is essential if more intense inflationary pressures are to be avoided in the period ahead. Otherwise, aggregate demand would continue growing at an unsustainable pace and would soon begin to create a destabilizing inflationary climate. Supply conditions for materials and labor would tighten further and costs would start to rise more rapidly; businesses would attempt to recoup profit margins with further price hikes on final goods and services. These faster price rises would, in turn, foster an inflationary psychology, cut into workers' real purchasing power, and prompt an attempted further catchup of wages, setting in motion a dynamic process in

which neither workers nor businesses would benefit. The hard-won gains in our international competitiveness would be eroded, with feedback effects depressing the exchange value of the dollar. Excessive domestic demands and inflation pressures in this country, with its sizable external deficit, would be disruptive to the ongoing international adjustment of trade and payments imbalances.

Not only the reduced slack in the economy but also several prospective adjustments in relative prices have accentuated inflation dangers. One is the upward movement of import prices relative to domestic prices, which is a necessary part of the process of adjustment to large imbalances in international trade and payments. Another is the recent drought-related increases in grain and soybean prices. It is essential that we keep these processes confined to a one-time adjustment in the level of prices and not let them spill over to a sustained higher rate of increase in wages and prices. Elevated import and farm prices must be prevented from engendering expectations of higher general inflation, with feedback effects on labor costs. A more serious long-run threat to price stability could come from government actions that introduced structural rigidities and increased costs of production. Protectionist legislation, inordinate hikes in the minimum wage, and other mandated programs that would impose costs on U.S. producers would adversely affect their efficiency and international competitiveness.

The costs to our economy and society of allowing a more intense inflationary process to become entrenched are serious. As the experience in the past two decades has clearly shown, accelerating wages and prices would have to be countered later by quite restrictive policies, with unavoidably adverse implications for production and employment. The financial health of many individual and business debtors, as well as of some of their creditors, then would be threatened. The long-run costs of a return to higher inflation and the risks of this occurring under current circumstances are sufficiently great, that Federal Reserve policy at this juncture might be well advised to err more on the side of restrictiveness rather than of stimulus.

We believe that monetary policy actions to date, together with the fiscal restraint embodied in last fall's agreement between the Congress and the administration, have set the stage for containing inflation through next year. The central tendency of FOMC members' expectations for inflation in the GNP deflator ranges from 3 to 3-3/4 percent over this year and 3 to 4-1/2 percent next year. But in one sense the GNP deflator understates this year's rate of inflation, and the comparison with next year overstates the pick-up. The deflator represents the average price of final goods and services produced in the United States, or equivalently domestic value added, using current quantity weights. This measure was artificially held down in the first quarter by a shift in the composition of output, especially by the surge in sales of computers whose

prices have dropped sharply since the 1992 base year used for constructing the deflator. Indeed, if the deflator were indexed with a 1987 base year, it would have risen appreciably faster in the first quarter.

Another understatement of inflation in the deflator this year arises from its exclusion of imported goods, which are not directly encompassed because they are produced abroad. In part because import prices have continued to rise significantly faster than prices of domestically produced goods, consumer price indexes have increased more than the GNP deflator.

The FOMC believes that efforts to contain inflation pressures and sustain the economic expansion would be fostered by growth of the monetary aggregates over 1988 well within their reaffirmed 4 to 8 percent annual ranges, followed by some slowing in money growth over the course of next year. M2 should move close to the midpoint of its range by late 1988, if depositors react as expected to the greater attractiveness of market instruments compared with liquid money balances that was brought about by recent increases in short-term market rates relative to deposit rates. M3 could end the year somewhat above its midpoint, though comfortably within its range, if depository institutions retain their recent share of overall credit expansion. The debt of nonfinancial sectors, which so far this year has been near the midpoint of its reaffirmed 7 to 11 percent monitoring range, is anticipated to post similar growth through year-end.

For 1989, the FOMC has underscored its intention to encourage progress toward price stability over time by lowering its tentative ranges for money and debt. We have preliminarily reduced the growth range for M2 by 1 full percentage point, to 3 to 7 percent; last February, the FOMC also had reduced the midpoint of the 1988 range for M2 by 1 percentage point from that for 1987. We have adjusted the tentative 1989 range for M3 downward by 1/2 percentage point, to 3-1/2 to 7-1/2 percent. This configuration is consistent with the observed tendency for M3 velocity over time to fall relative to the velocity of M2; over the last decade, the Federal Reserve's ranges frequently allowed for faster growth of M3 than of M2. The monitoring range for domestic nonfinancial debt for 1989 also has been lowered 1/2 percentage point to a tentative 6-1/2 to 10-1/2 percent.

The specific ranges chosen for 1989 are, as usual, provisional, and the FOMC will review them carefully next February, in light of intervening developments. Anticipating today how the outlook for the economy in 1989 will appear next February is difficult, and a major reassessment of that outlook would have implications for appropriate money growth ranges for that year. Unexpectedly strong or weak economic expansion or inflation pressures over the next six months also could have implications for the behavior of interest rates and their prospects for 1989. The sensitivity of the monetary aggregates to movements in market interest rates means that the appropriate growth next year

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in M2, M3, and debt could seem different next February than now, necessitating a revision in the annual growth ranges. As the aggregates have become more responsive to interest rate changes in the 1980s, judgments about possible ranges for the next year necessarily have become even more tentative and subject to revision.

The persistent U.S. external and fiscal imbalances.

Despite the changes in the economic setting over the last six months, other features of the macroeconomic landscape remain much the same. Most notable are the continuing massive deficits in our external payments and internal fiscal accounts. As a nation, we still are living well beyond our means; we consume much more of the world's goods and services each year than we produce. Our current account deficit indicates how much more deeply in debt to the rest of the world we are sliding each year.

The consequence of this external imbalance will be a steady expansion in our external debt burden in the years ahead. No household or business can expect to have an inexhaustible credit line with borrowing terms that stay the same as its debt mounts relative to its wealth and income. Nor can we as a nation expect our foreign indebtedness to grow indefinitely relative to our servicing capacity without additional inducements to foreigners to acquire dollar assets--either higher real interest returns, or a cheaper real foreign exchange value for dollar assets, or both. To be sure, such changes in market

incentives would have self-correcting effects over time in reducing the imbalance between our domestic spending and income. Higher real interest rates would curtail domestic investment and other spending. A lower real value of the dollar would make U.S. goods and services relatively less expensive to both U.S. and foreign residents, damping our spending on imports out of U.S. income and boosting our exports.

But simply sitting back and allowing such a self-correction to take place is not a workable policy alternative. Trying to follow such a course could have severe drawbacks now that our economy is operating close to effective capacity and potential inflationary pressures are on the horizon. The time is hardly propitious to discourage investment in needed plant and equipment, to add further impulses for import price hikes on top of the upward tendencies already in the making, or to push our export industries as well as import-competing industries to their capacity limits.

Fortunately, we have a better choice for righting the imbalance between domestic spending and income--one over which we have direct control. That is to resume reducing substantially the still massive federal budget deficit, which remains the most important source of dissaving in our economy. The fall in the dollar we have already experienced over the last few years, even allowing for the dollar's appreciation from the lows reached at the end of last year, has set in motion forces that should continue to narrow our trade and current account deficits

in the years ahead. The associated loss of foreign-funded domestic investment is likely to adversely affect overall investment unless it can be replaced by greater domestic investment financed by domestic saving. A sharp contraction in the federal deficit appears to be the only assured source of augmented domestic net saving. Such a fiscal cutback should help counter future tendencies for further increases in U.S. interest rates and declines in the dollar, partly by instilling confidence on the part of international investors in the resolve of the United States to address its economic problems.

Fiscal restraint in the years ahead would assist in making room for the needed diversion of more of our productive resources to meeting demands from abroad. Domestic demands will have to continue growing more slowly than our productive capacity, as seems to have been the case so far this year, if net exports are to expand further without resulting in an inflationary overheating of the economy. Absent this fiscal restraint, higher interest rates would become the only channel for damping domestic demands if they were becoming excessive. If a renewed decline in the dollar were adding further inflationary stimulus at the same time, upward pressures on interest rates would be even more likely. The restrictive impact would be felt most by the interest-sensitive sectors--homebuilding, business fixed investment, and consumer durables.

In terms of federal deficit reduction, the schedule under the Gramm-Rudman-Hollings law is a good baseline for a

multi-year strategy, and I trust the Congress will stick with it. But we should go further. Ideally, we should be aiming ultimately at a federal budget surplus, so that government saving could supplement private domestic saving in financing additional domestic investment. Historically, the United States was not a low saving, low investing economy. From the post-Civil War period through the 1920s, the United States consistently saved more as a fraction of GNP than Japan and Germany, and we saved much more as a share of GNP then than we have since the end of World War II. A turnaround in our current domestic saving performance is essential to a smooth reduction in our dependence on foreign saving, and the federal government should take the lead.

It is also apparent that redressing our external imbalances must encompass cooperative policies with our trading partners. These include both the established industrial powers, the newly industrialized economies, and the developing countries, whose debt problems must be worked through as part of the international adjustment process.

This is the strategy that U.S. fiscal policy as well as economic policies abroad should follow in most effectively promoting our shared economic objectives. The strategic role of U.S. monetary policy is implied by a clear statement of what those ultimate objectives are. We should not be satisfied unless the U.S. economy is operating at high employment with a sustainable external position and above all stable prices.

High employment is consistent with steadily rising nominal wages and real wages growing in line with productivity gains. Some frictional unemployment will exist in a dynamic labor market, reflecting the process of matching available workers with available jobs. But every effort should be made to minimize both impediments that contribute to structural unemployment and deviations of real economic growth from the economy's potential that cause cyclical unemployment.

By a sustainable external position, I am referring to a situation in which our foreign indebtedness is not persistently growing faster than our capacity to service it out of national income. Our international payments need not be in exact balance from one year to the next, and the exchange value of the dollar need not be perfectly stable, but wide swings in the dollar, and boom and bust cycles in our export and import-competing industries, should be avoided.

By price stability, I mean a situation in which households and businesses in making their saving and investment decisions can safely ignore the possibility of sustained, generalized price increases or decreases. Prices of individual goods and services, of course, would still vary to equilibrate the various markets in our complex national and world economy, and particular price indexes could still show transitory movements. A small persistent rise in some of the indexes would be tolerable, given the inadequate adjustment for trends in quality improvement and the tendency for spending to shift toward goods

that have become relatively cheap. But essentially the average of all prices would exhibit no trend over time. Price movements in these circumstances would reflect relative scarcities of goods, and private decision-makers could focus their concerns on adjusting production and consumption patterns appropriately to changing individual prices, without being misled by generalized inflationary or deflationary price movements.

The strategy for monetary policy needs to be centered on making further progress toward and ultimately reaching stable prices. Price stability is a prerequisite for achieving the maximum economic expansion consistent with a sustainable external balance at high employment. Price stability reduces uncertainty and risk in a critical area of economic decision-making by households and businesses. In the process of fostering price stability, monetary policy also would have to bear much of the burden for countering any pronounced cyclical instability in the economy, especially if fiscal policy is following a program for multi-year reductions in the federal budget deficit. While recognizing the self-correcting nature of some macroeconomic disturbances, monetary policy does have a role to play over time in guiding aggregate demand into line with the economy's potential to produce. This may involve providing a counterweight to major, sustained cyclical tendencies in private spending, though we can not be overconfident in our ability to identify such tendencies and to determine exactly the appropriate policy response. In this

regard, it seems worthwhile for me to offer some thoughts on the approach the Federal Reserve should take in implementing this longer-term strategy for monetary policy.

The appropriate tactics for monetary policy.

For better or worse, our economy is enormously complex, the relationships among macroeconomic variables are imperfectly understood, and as a consequence economic forecasting is an uncertain endeavor. Nonetheless, the forecasting exercise can aid policymaking by helping to refine the boundaries of the likely economic consequences of our policy stance. But forecasts will often go astray to a greater or lesser degree and monetary policy has to remain flexible to respond to unexpected developments.

A perfectly flexible monetary policy, however, without any guideposts to steer by, can risk losing sight of the ultimate goal of price stability. In this connection, the requirement under the Humphrey-Hawkins Act for the Federal Reserve to announce its objectives and plans for growth of money and credit aggregates is a very useful device for calibrating prospective monetary policy. The announcement of ranges for the monetary aggregates represents a way for the Federal Reserve to communicate its policy intentions to the Congress and the public. And the undisputed long-run relation between money growth and inflation means that trend growth rates in the monetary aggregates provide useful checks on the thrust of monetary policy over time. It is clear to all observers that

the monetary ranges will have to be brought down further in the future if price stability is to be achieved and then maintained.

But, in a shorter-run countercyclical context, monetary aggregates have drawbacks as rigid guides to monetary policy implementation. As I discussed in some detail in my February testimony, financial innovation and deregulation in the 1980s have altered the structure of deposits, lessened the predictability of the demands for the aggregates, and made the velocities of M1 and probably M2 over periods of a year or so more sensitive to movements in market interest rates. Movements in short-term market rates relative to sluggishly adjusting deposit rates can result in large percentage changes in the opportunity costs of holding liquid monetary assets. Depositor responses can induce divergent growth between money and nominal GNP for a time. I might add that it was partly these considerations that led the FOMC to retain the wider four percentage point ranges for money and credit growth for this year and next.

Nonetheless, the demonstrated long-run connection of money and prices overshadows the problems of interpreting shorter-run swings in money growth. I certainly don't want to leave the impression that the aggregates have little utility in implementing monetary policy. They have an important role, and it is quite possible that their importance will grow in the years ahead. Currently, the FOMC keeps M2 and M3 under careful scrutiny, and judges their actual movements relative to assessments of their appropriate growth at any particular time.

In this context, these aggregates are among the indicators influencing adjustments to the stance of policy, both at regular FOMC meetings and between meetings, as the FOMC's directive to the Federal Reserve Bank of New York's Trading Desk indicates. The FOMC also regularly monitors a variety of other monetary aggregates. At times in recent years, we have intensively examined the properties of several alternative measures, and reported the results to the Congress. These measures have included M1, M1-A (M1 less NOW accounts), monetary indexes, and most recently the monetary base.

An analysis of the monetary base appears as an appendix to the Board's Humphrey-Hawkins report. This aggregate, essentially the sum of currency and reserves, did not escape the sharp velocity declines of other money measures earlier in the 1980s. Its velocity behavior stemmed from relatively strong growth in transactions deposits compared with GNP, which was mirrored in the reserve component of the base. In this sense, some of the problems plaguing M1 also have shown through to the base, though in somewhat muted form. Moreover, the three-quarters share of currency in the base raises some question about the reliability of its link to spending. The high level of currency holdings--$825 per man, woman and child living in the United States--suggests that vast, indeterminate amounts of U.S. currency circulate or are hoarded beyond our borders. Indeed, over the last year and one half, currency has grown

noticeably faster than would have been expected from its historical relationships with U.S. spending and interest rates.

Although the monetary base has exhibited some useful properties over the last three decades as a whole, the FOMC's view is that its behavior has not consistently added to the information provided by the broader aggregates, M2 and M3. The Committee accordingly has decided not to establish a range for this aggregate, although it has requested staff to intensify research into the ability of various monetary measures to indicate long-run price trends.

Because the Federal Reserve cannot reliably take its cue for shorter-run operations solely from the signals being given by any or all of the monetary aggregates, we have little alternative but to interpret the behavior of a variety of economic and financial indicators. They can suggest the likely future course of the economy given the current stance of monetary policy.

Judgments about the balance of various risks to the economic outlook need to adapt over time to the shifting weight of incoming evidence; this point is well exemplified so far this year, as noted earlier. The Federal Reserve must be willing to adjust its instruments fairly flexibly as these judgments evolve; we must not hesitate to reverse course occasionally if warranted by new developments. To be sure, we should not overreact to every bit of new information, because the frequent observations for a variety of economic statistics are subject to

considerable transitory "noise". But we need to be willing to respond to indications of changing underlying economic trends, without losing sight of the ultimate policy objectives.

To the extent that the underlying economic trends are judged to be deviating from a path consistent with reaching the ultimate objectives, the Federal Reserve would need to make "mid-course" policy corrections. Such deviations from the appropriate direction for the economy will be inevitable, given the delayed and imperfectly predictable nature of the effects of previous policy actions. Numerous unforeseen forces not related to monetary policy will continue to buffet the economy. The limits of monetary policy in short-run stabilization need to be borne in mind. The business cycle cannot be repealed, but I believe it can be significantly damped by appropriate policy action. Price stability cannot be dictated by fiat, but governmental decision-makers can establish the conditions needed to approach this goal over the next several years.

The CHAIRMAN. Well, thank you very much, Dr. Greenspan.

Let me ask you first, is it true that because of the lags involved the changes in monetary policy that would affect the economy, affect interest rates, stock prices and so forth—those changes are probably already done. They were changes that occurred in the past and that between now and the election, that any changes in monetary policy would not have an effect on the economy?

I ask that because Dr. Fair, a distinguished professor from Yale University, testified that in his judgment that was the case and the other experts yesterday seemed to agree with that judgment.

Mr. GREENSPAN. I think it is substantially true, Mr. Chairman, that most of the effects of economic policies, specifically with respect to monetary policy, occur only with a lag.

Nonetheless, I think that there are effects which are continuing and which could be altered should policy change in any significant way. But those effects could be described as relatively small, compared with the effects already in place currently embodied in the structure of policy.

The CHAIRMAN. I thought your statement was an excellent statement and you talked about something I think we have to be concerned about—living beyond our means.

LIVING BEYOND OUR MEANS

The unique thing about your statement is you didn't confine living beyond our means to the Federal Government. We are living beyond our means obviously. We all know that. We've talked about it and debated it. But yours is one of the first statements from a top official that I've heard that includes American households and businesses. And I think that it's a very, very important point.

Not only is the Federal Government living beyond its means, but our households are deeply in debt. Our businesses are enormously in debt. The figures I've seen from the Federal Reserve on household debt is that it's over $3 trillion. On business debt, if you include not only corporate debt but nonincorporated business, including farms and so forth, that it's over $4 trillion. And that this is occurring at a time when savings are low.

The reason I bring that up is that any compensatory action on the part of the Federal Reserve to allow for the fact that we're shrinking the Federal deficit—people have talked about how, yes, we can encourage with lower interest rates housing and borrowing for automobiles and so forth. It seems to me either way you do it, you're living beyond your means and we're simply shifting the indebtedness and the obligations from the Federal Government to the private sector.

Mr. GREENSPAN. I would, of course, generally agree with the overall thrust of your remarks with one addition, which I think is an important one.

We would not have particular problems if the difference between consumption and income in our system were being financed with equity, and if we had very effective ratios of capital to debt because in those instances we could absorb a considerable amount of economic shock.

When evaluating debt, it is incomplete merely to look at the aggregate levels. It's always important to view debt relative to equity in balance sheets. And here, even though it is certainly the case that we have very large debts in the household sector, we also, of course, have very substantial assets.

The CHAIRMAN. Let me interrupt in that situation, however. Isn't it true that there's been an enormous increase in borrowing by corporations compared to raising equity, particularly in view of the merger mania, the takeovers and so forth which have been financed largely by debt and there are certainly at least many dramatic cases of corporations that had a strong equity-debt ratio and now have a much weaker, thinner capital-debt ratio?

Mr. GREENSPAN. Yes. In fact, that has been concerning me, as you know, for a number of years. Long-term interest rates have come down a great deal since their peaks in the early 1980's. But the ratio of interest payments of the nonfinancial corporate sector to gross cash flow has not come down, and that is another indication of the fact that instead of getting debt relief from the decline in interest rates which occurred from the early 1980's to the most recent period, we have essentially offset that relief by increasing debt. The interest payments, the servicing costs, so to speak, remain undiminished and, in my judgment, higher than I would like to see them.

The CHAIRMAN. My time is up. Senator Garn.

Senator GARN. Thank you, Mr. Chairman.

Chairman Greenspan, increasing internationalization of world markets—world capital markets in particular—was an important part of passage of S. 1886, the Proxmire bill which passed the Senate 94 to 2.

Do you still favor that legislation? It's been some 3 months now since it passed the Senate.

Mr. GREENSPAN. Yes, I do, and the Federal Reserve Board still does.

Senator GARN. And my next question would be, then, have you had an opportunity to look at the St Germain draft bill?

Mr. GREENSPAN. Only cursorily, Senator.

Senator GARN. And what is your cursory opinion of the St Germain bill?

Mr. GREENSPAN. My cursory opinion is that it could probably accept some amendments from the Senate. [Laughter.]

Senator GARN. Well, you're much more charitable with it than I am.

I feel very strongly that if we go to conference and we do not have a bill that looks very much like the Senate bill, that we would probably be better off with no bill at all. I would expect that if this happened that people would say, well, there's been another deregulation bill passed and it's good for another 6 or 7 years.

So I'm hopeful that there will be more than just some amendments by the Senate. I hope we can come up with a bill that is much closer to the Senate bill so that we can pass one that is significant and does not pacify certain elements for a number of years into the future.

Would you go so far as to say that you feel that it should look very close to what the Senate bill looks like?

Mr. GREENSPAN. Until I've gone beyond a cursory look, which is really inadequate for any form of analysis, I wouldn't want to give you any extended position. But nonetheless, I do think that at this particular stage, speaking for my colleagues, that the Senate bill as it stands is the type of model we would like to see evolving as this particular piece of legislation moves forward.

Senator GARN. I would hope that when you've had an opportunity to look at it more carefully that we could have a more detailed analysis of the bill from you and, hopefully, an expression of the Board in general as to how they feel about the bill.

Mr. GREENSPAN. I would think we would be obliged first to communicate detailed discussions with your counterparts in the House after we evaluate it, but after that point I'm sure we would be more than willing to go public.

Senator GARN. News travels fast. We have no problem with that.

In your statement, you say:

> A more serious long-run threat to price stability could come from government actions that introduced structural rigidities and increased costs of production. Protectionist legislation, inordinate hikes in the minimum wage, and other mandated programs that would impose costs on U.S. producers would adversely affect their efficiency and international competitiveness.

I think that's a very important statement. Would you expand and elaborate on that particular comment?

Mr. GREENSPAN. Well, I think that what we have observed over the years is that one can create inflationary environments by means other than adverse monetary or fiscal policies. There are a number of actions that can be taken which can load costs onto the economy indirectly which have very much the same effects as inflationary monetary policies.

One thing that does concern me is that as we move toward a period when budget restraint is going to become of necessity the highest priority so far as economic policy is concerned, I'm concerned that we will tend to try to create a number of different economic policies through regulation or indirectly through various different types of actions which in effect move resources, increase costs, in a way which is presumed to be hidden.

Protectionist legislation, in my judgment, is the most dangerous form of cost increase because it gives a sense of tranquility too often to companies which should be competing very fiercely and will have to at some point. So I would basically argue that we must be careful not to substitute various different forms of cost-increasing legislation merely because the vehicle which exists or has existed in the past through the Federal budget is no longer available.

Senator GARN. Thank you, Mr. Chairman. My time is up.

The CHAIRMAN. Senator Sasser.

Senator SASSER. Thank you very much, Mr. Chairman.

Mr. Chairman, I have a statement which I would like to have included in the record as if read.

The CHAIRMAN. Without objection, so ordered.

STATEMENT OF SENATOR JIM SASSER

Mr. Chairman, the committee is honored today by the presence of the distinguished Chairman of the Federal Reserve Board. I am

pleased that Dr. Greenspan will give us his view of where the economy is headed.

I think Dr. Greenspan deserves great credit for his stewardship of the Federal Reserve over the past year. Indeed, the Fed performed extraordinarily well in responding to the October stock market crash. The Fed stepped in quickly, and reassured the marketplace by providing the liquidity needed to get us through those seemingly desperate days.

Mr. Chairman, I am concerned, however, about the conduct of monetary policy in the months ahead. I am afraid that some on wall street may be a little too concerned about inflation, and too quick to advocate a rise in interest rates.

Right now the last thing we need is a restrictive monetary policy. The risks the economy would incur if we were to move into a recession are far too great.

We already are running an unacceptable fiscal deficit. A rise in interest rates, and particularly a contraction in the economy, would only exacerbate that deficit. I note that Professor Blinder testified yesterday that the deficit could easily go to $300 billion were there to be a recession.

And as we all know, we are facing a crisis in the savings and loan industry. Given the situation, a recession could easily undermine the safety and soundness of the banking system.

To put it mildly, I think the Fed will play a critical role in the coming months. I look forward to Dr. Greenspan's testimony. Thank you, Mr. Chairman.

Dr. Greenspan, I want to welcome you before the committee this morning and yesterday we had the good fortune to have a panel of very distinguished and eminent economists appear before the committee to give their views on monetary policy and generally their views on the state of the economy.

One of those was Professor Alan Blinder, a distinguished economist from Princeton University. Dr. Blinder spoke of the speculation that the Fed might increase interest rates in the wake of the recently announced lower unemployment rate and over concern that the economy might be overheating.

He also indicated that the Fed should not be swayed by what he characterized as "the hysteria that seems to sweep Wall Street about every 2 weeks." He went on to say the speculative markets react to everything, including things that are just imagined and they react too vigorously and he concluded by saying, "the Fed must ignore this insanity."

What about this speculation on a rise in interest rates and what about Professor Blinder's comment? How significant an increase in rates is the Fed looking at at this juncture?

RISE IN INTEREST RATES

Mr. GREENSPAN. Well, Senator, I agree with Dr. Blinder in the sense that there is a great deal of street chatter, as we call it, which of necessity fills up the newspapers, largely because people discuss with each other why they are investing, why they are not investing, sometimes based on evidence, sometimes not, sometimes based on hunch.

A lot of that is actually quite useful in that we monitor it to a very considerable degree because it tells us a good deal about what the attitudes of the investing public and the professional investors are.

However, that's just merely a piece of evidence so far as Federal Reserve policy is concerned. It is an important piece of evidence because it tells us something about their expectations which one must presume are embodied in levels of interest rates, stock prices, exchange rates, and a variety of other things.

But I should certainly hope that we take it as that and are not unduly swayed as though much of that is the same thing as hard evidence about what the economy is doing at any particular time.

Our monetary policy will continue, I hope, to focus on the hard facts of what the economy is doing and the particular positions that the FOMC will take. Consequently, attitudes toward the various different financial variables will depend on how the Committee views the ongoing evolution of economic developments over the next year or year and a half.

Senator SASSER. Well, Mr. Chairman, given the fragility of the financial system at this juncture and the fiscal imbalance that we find ourselves in, I would come down on the side of avoiding a recession almost at all costs, and I do hope that the Fed will not be hyperreactive to any signs, real or imagined, of impending inflation. If we fall off into recession, we've got the problem of the Federal deficit. We were told yesterday that in a recessionary economy it could run up to as high as $300 billion annually. We're saddled here in this committee with the problem of the ailing S&L's and we are told that the FSLIC might have liability up to $60 billion with regard to these thrifts. If we get into a recessionary economy the Congress and the new administration are not going to have the ability to conduct a countercyclical fiscal policy as we've done in times past because we simply are not going to have the wherewithal to do it, given the large budget deficit.

So that's why I'm concerned this morning, Mr. Chairman, about the whole question of the Fed tightening monetary policy or raising rates in anticipation of some inflationary pressures. I would urge that we not overreact to that.

I noted a day or two ago that Wall Street had reacted to the unemployment rate that is now is 5.3 percent, the lowest we have had in 14 years. Usually that is a sign and a signal that there might be some inflationary pressure mounting because of bidding for labor services—there is a shortage of labor.

But when you get inside those figures, according to the Wall Street Journal, what we find is that, unlike in the 1970's, a large proportion of these unemployed are mature workers, as opposed to the 1974 figures, for example, of this 5.3 figure being composed very largely of teenage workers. Because of demographic changes, the unemployed now are largely made up of mature workers which would indicate that there's not the labor shortage out there that these low unemployment figures would indicate.

That and a number of other factors lead me to at least weigh in, Mr. Chairman, with regard to the Fed's monetary policy of not being overreactive to signs of inflationary pressure.

That's my speech this morning.

The CHAIRMAN. Senator D'Amato.

Senator D'AMATO. Well, thank you, Mr. Chairman. I can quote Senator Chafee while he's here.

Mr. Chairman, I want to tell you I'd like to associate myself with some of the statements of my colleague, Senator Sasser. We've got problems with FSLIC. We've got a ticking time bomb with FDIC. Nobody wants to say that. I think we do a great mistake by the way if this committee and staffers on this committee run around and say, well, FSLIC has a hole of $60, $70, $80 billion. If you really wanted to look at the international debt situation and the commercial loan situation and add it up just like GAO went ahead and did with FSLIC, you'd find maybe the situation will be even more distressing. It's the faith and confidence in the system that we will provide the mechanism by which to work our way out that in the fullness of time will be the only solution, not just screaming and yelling from the highest bell tower about the problems.

I also think that Senator Sasser said something that bears repetition. I would hate to think that we're going to try to cool inflationary pressures by just simply the monetary policy of raising interest rates. We've seen some of that in the past and I think it's been rather disastrous. It is a very important component in that inflation factor. When you raise interest rates to the business community, to the home owner, to the user of products, it exacerbates problems as it relates to a recessionary cycle. So it's a very careful balancing act and I would hope that our Chairman—I have every confidence in him—that he is able to manage that in such a way that we don't tilt it too much toward that high interest rate phenomena that we saw in the past, a good deal of it which came from your predecessor. Everybody gives him great grades. I think that he kept that spigot on the credit closed just a little too long and brought about a little too much pain and brought about a little too much recession that was unnecessary. Yet we're not supposed to say those things because we're supposed to be in the world where we say everything is wonderful and we all do wonderful and good jobs.

As it relates to the work of this committee, let me suggest to you that we have an opportunity to open up the spigot to about $1½ billion to the thrift industry that is sadly, sadly and deeply in need, simply by lifting a restriction on the trading of Freddie Mac, simply by taking that ban off and allowing it to proceed.

Now for whatever reason it seems to me that staff has made up their mind—and I'll be very candid—the staff director who has worked his way to attempt to encourage members to put in various amendments on that legislation that has brought then concern to other members of this committee so we can't even proceed, notwithstanding that 14 members of this committee have indicated support for that legislative initiative. I think it's a rather sad commentary.

Now are we talking political gamesmanship or are we talking about what we're going to do to benefit this ailing industry? Are we talking about doing the right thing or are we talking about some kind of obsequiousness that we have to pay in tribute to the staff director? That's a heck of a thing for me to have to say, but I'm sick and tired of that kind of nonsense and it's nonsense.

We were promised—I was promised, particularly on the floor, a markup for tomorrow. Now that's what was made. You said, "Senator, if you don't go forward with this legislation"—then another group of Senators are promised that they can introduce amendments and use that markup as a vehicle by which to introduce their amendments. You want to talk about the dog in the manger, that's exactly what that is. That's the dog in the manger and the cow is not going to come in there to eat, and so everybody is promised something but we have the dog in the manger. I don't enjoy it.

Mr. Chairman, you may say, well, why don't we try to discuss these things privately. Well, no one has ever made the opportunity or the attempt. I would think that I would be owed at least that, so I didn't have to make this public. But it seems to me that's the only way we have to do it.

So now when this Senator looks upon other vehicles by which to put this legislative initiative, I don't want people to be surprised. I think that a promise that was made and accepted in good faith has not been kept. It's unfortunate and it's wrong and it's certainly not helping to address the problems. Let's take it on the merits. If the legislation isn't any good, kill it, vote it down. But when you don't have the votes, it doesn't seem to me that that's the appropriate thing to do to exercise the kind of discretion that is placed in the chairman and just deny that markup that was promised for tomorrow.

So I share those thoughts with you. I think some of my colleagues may agree. Some may not want to—by the way, I expressed it in a lot less emotion than I'm generally given in regards to matters of this kind, particularly when I feel rather aggrieved.

Thank you, Mr. Chairman.

The CHAIRMAN. May I respond to the distinguished Senator from New York? I want to thank you for your kind and gentle remarks, kinder and gentler than they sometimes are, but I do think that in fairness to the staff, the decision was not made by the staff.

Senator D'AMATO. He just set all the conditions, Mr. Chairman, by which it was brought about.

The CHAIRMAN. Well, let me say that I've been insulted in a lot of ways, but I think the worst insult would be to tell me that I don't know what the dickens I'm doing and that the staff runs the committee, which is what the distinguished Senator from New York is certainly implying and that certainly isn't the case.

Let me say why we postponed this matter. During the hearings on the Freddie Mac bill I asked Mr. Brendsel, who is the head of Freddie Mac, the President of Freddie Mac, for legislation on how FSLIC could share in the profits. That language has been prepared and it's been sent to the Chairman of the Bank Board. We haven't gotten an answer from him. The staff made at my direction repeated inquiries of the Bank Board as to its position on the bill and on the FSLIC recapture issue. No answer has been forthcoming.

Last Monday, I asked the Bank Board in writing for its views on the FSLIC recapture issue not later than Tuesday. We still have not heard from the Board. If it's feasible and desirable to recapture part of the profits for FSLIC, it's an opportunity this committee shouldn't let slip away. FSLIC is in terrible trouble. They need that money desperately. If they could have only several hundred million

dollars it would help greatly. As you know, it's either a bailout or it raising money from the industry itself, and this is one way of providing a little more money for FSLIC.

So in view of all that, it seemed to me that it wouldn't be responsible for the committee to proceed in the markup on Freddie Mac without the formal views of the Bank Board.

Now this is not a cancellation. The Senator earlier— not in these remarks, but earlier indicated that we had canceled that meeting. We didn't cancel the meeting. We postponed the meeting. We intend definitely to have the meeting. You said that 14 members of the committee support your bill. That's true and I'm one of the 14, as you know. I've said I support it.

Senator D'AMATO. That would be 15, Mr. Chairman.

The CHAIRMAN. Well, all right, then it's 15 members who support it. I think it's a good provision.

Senator GRAMM. Let's vote.

The CHAIRMAN. But I did state on the record that I supported the bill, but I think we ought to know what we're doing and we ought to consider whether or not we can provide several hundred million dollars for FSLIC as well as most of the money, three-quarters of the money perhaps, for the S&L's. That was the reason why I postponed that, but I definitely did not cancel it. I have every intention of having a markup on that bill, but I think we ought to do it with the fullest knowledge we can get.

Senator GARN. Mr. Chairman.

The CHAIRMAN. Senator Garn.

Senator GARN. If I could also respond—and the Senator from New York is well aware of this—we have had two or three private conversations on this issue over the last day or two and so I wish to make my statements to him public. As ranking Republican on this committee, I was part of the decision and agreed to the postponement of the markup. I think the Senator is well aware why I felt that way, because when we had the hearing he and I had a rather heated discussion. It was not over the substance. I don't know whether, Al, I'm counted in your 14 or 15, but I did state in that hearing that I was also in favor of the legislation. So is that 16 or am I part of the 15?

Senator D'AMATO. Sixteen.

Senator GRAMM. We'd better vote fast. [Laughter.]

Senator GARN. You didn't count very carefully then, because if you remember, I started out our heated discussion by saying I was in favor of your bill; but I was not in favor of rushing into it until we had the answers to some questions. I asked all of the witnesses very pointedly, "Will one of you answer my question?" None of them had the answer to those questions. So that is my position. We should move forward. The Freddie Mac stock should be freed up and my attitude is that we ought to have the markup the week after we come back from recess. As far as I'm concerned—and I can only speak for myself—if at that time the Bank Board and Freddie Mac, have not answered our questions, then we go ahead and mark it up. We give them another 2 weeks and if they have not answered us by then, we will go ahead and mark up the bill and 16 of us, or however many, will vote for it.

The CHAIRMAN. If the Senator from Utah would yield, I agree with that and I intend to do exactly that.

Senator D'AMATO. So I understand that the Chair is indicating that the week we come back that we will then take this up?

The CHAIRMAN. That's correct.

Senator D'AMATO. Well, fine.

Senator GARN. I would further suggest, Mr. Chairman, the 27th, I believe, is clear on the schedule. That's 2 weeks from today; and if we've not had the official opinion of the Board, we will move ahead without them.

The CHAIRMAN. The 27th is fine with me.

Senator D'AMATO. I thank the chairman and I thank the ranking member.

The CHAIRMAN. Senator Riegle.

Senator RIEGLE. Thank you, Mr. Chairman.

You had a ringside seat for that at no extra charge. [Laughter.]

It sounds to me in terms of what you said in going through your statement that interest rates are probably headed up. That's what I draw from what you presented here.

On page 7, you say explicitly that Federal Reserve policy at this juncture might be well advised to err more on the side of restrictiveness rather than stimulus, and I think the general pattern of events, in addition to other things you've said today, would suggest upward pressure. When we watch what's happening to interest rates in Great Britain, that's the sense I get.

Now if you dispute that, I think you should respond one way or the other.

Mr. GREENSPAN. As you know, Senator, we are not in the business of forecasting rates. What we are in the business of doing is evaluating the balance of risks. To state, as we do, that the risks are more on the inflation upside than on the recession downside is not to say that of necessity it will come out that way.

What we will do and what we have done is to continuously and concurrently evaluate economic events and financial pressures as they emerge and take actions as is appropriate to it.

We do not forecast interest rates and, in fact, we do not have implicit in our policies something which says that we will be moving in a direction which will either move rates up or move rates down over some protracted period. That's not the way the system functions nor do I think it should.

Senator RIEGLE. Well, let me ask you this. If interest rates tend to be rising around the world and it seems to me they are—I think we see pressure in that direction—we're the largest debtor nation, so we've got more borrowing to do, unfortunately, than anybody else. We've already had some rise in the value of the dollar and there's a whole question as to whether it can hold that rise or goes back down. That creates an interest rate risk to somebody that's going to invest by lending to the United States from abroad—a currency risk, if you will, if there's reversal in the dollar value.

Why doesn't that necessarily have to push our rates up? How can we keep our rates down if rates are rising generally?

Mr. GREENSPAN. Well, Senator, there are many more things involved in the determination of pressures which move rates one way

or the other than either international considerations or even the domestic economic structure.

There are so many elements involved.

Senator RIEGLE. I don't dispute that. I agree with that, but I guess what I'm saying is, given the fact that you have this whole mix of elements with the ones that I've just stressed, why doesn't that upward pressure on rates inevitably cause us to have to respond in kind?

Mr. GREENSPAN. Basically, it's the word "inevitably" that I'm responding to. I don't think it is inevitable. Obviously, it is a pressure in that direction, but there can be innumerable other things working in the other direction of greater force which would negate that.

Senator RIEGLE. What's the most hopeful one you see on the horizon that would help us keep rates down in the face of upward pressures elsewhere?

Mr. GREENSPAN. Well, I would say, first of all, I'm not necessarily subscribing to the presumption that rates internationally are going up. It is certainly the case that they have gone up recently. It doesn't necessarily follow that they will continue to do so. I know of no actions contemplated by any of my counterparts in the international arena which necessitates that. I don't deny it is possible, it's certainly one of the innumerable credible forecasts out there that could occur, but it may not. And it may not basically because inflationary pressures which still are held in check may continue to be held in check or they may begin to ease for reasons that are not obvious at the moment.

All we can do is to try, as best we can, to monitor what's going on on a continuous and real-time basis and try to evaluate where the risks of mistakes are in policy. What few people realize is that policy is perhaps more focused on what the cost is of going in direction "a" if you're wrong? We consider that all the time and that's a major issue involved in the current period.

Senator RIEGLE. Well, let me ask you to crank one other thing into your forward planning. I had a top official in the Government come to see me yesterday who's in a position to be very knowledgeable, who conveyed an estimate of the size of the savings and loan exposure of the losses that are going to have to be covered somewhere between $50 and $70 billion.

FISCAL READJUSTMENT PLAN

Your strategy here is to have a fiscal readjustment plan somewhere along the line, presumably in the next administration because there's no sign of it coming in the rest of this year. I'd like to know how we're going to square those two things, have a fiscal readjustment plan that brings down Federal deficits, and at the same time brings this savings and loan deficiency up into the light of day, stops the hemorrhaging, solves it in the range of a $50 billion problem or higher, and make all that fit together. I'd like to hear some sense as to how you think those two things can be cross-connected here.

Mr. GREENSPAN. Well, first, Senator, I've seen those numbers—and I've evaluated a lot of different numbers and what I am aware

of is the fact that we have very great analytical problems with trying to make judgments about the scope of this hole in FSLIC.

The reason we have the problem is that even though we are dealing with financial instruments—mortgages on the asset side of the balance sheet of the S&L's largely—they are essentially at the end of the line a nonrecourse loan against a property whose value is deficient. I say nonrecourse in the sense that as a practical matter it often works out that way.

The tricky problem is not in evaluating the state of those loans. It's trying to make a judgment about the market value of all of those properties on which those loans rest. And while there are a lot of people who are appraisers and they look at this, until you've got a hard evaluation over the long run, you really don't know exactly what the size of that hole is.

I think it's substantial. I don't frankly know what the specific number is. But whatever the number, it is not a situation which, in the event of a congressional approach to this problem, would require up front the types of numbers that you're talking about even remotely. It is a problem which is extended over a period of time. It is, nonetheless, an issue which I think does exacerbate the fiscal problem and it is something which the next Congress is going to have to confront. It's just that I'm a little bit reluctant to absorb some of the numbers which I've seen because I know how difficult those estimates really are. I think the ranges are much wider.

Senator RIEGLE. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Gramm.

Senator GRAMM. Thank you, Mr. Chairman.

AVOIDING A RECESSION AT ALL COSTS

Dr. Greenspan, I'm sort of obsessed with this idea of avoiding a recession at any cost and I'd like to ask you a question, going back to your comments on page 6. As you know, we have pending before the Congress now a series of labor provisions that range from substantial increase in the minimum wage to mandated benefits to worker notification of plant closings and layoffs. I've seen estimates that all of this package, if put together and adopted, would raise the cost of job creation in the country maybe by as much as one-quarter.

If your objective were to avoid a recession at all costs, to create more jobs, more growth, more opportunity in America, would you see the adoption of that general type of legislation as being a positive or a negative?

Mr. GREENSPAN. Negative.

Senator GRAMM. And you would say that, other things being the same, that the adoption of that package would mean fewer jobs, less growth, less opportunity?

Mr. GREENSPAN. Over the longer run, I would subscribe to that statement.

Senator GRAMM. Let me talk a little bit about this whole debt issue. It seems to me that the real question we've got to face, whether we're talking about public debt or private debt or domestic debt or international debt, is what was the money used for? If the money was used to create wealth, to build new plants and equip-

ment thats one thing. It's no secret that we borrowed our way into being a world power, since the United States was a debtor nation from the time the first pilgrim stepped on Plymouth Rock until about 1920.

If on the other hand the borrowing is going basically to nonproductive uses—that is, it's not creating a wealth flow that will in turn pay off the debt and generate wealth in the process—then debt becomes a negative factor.

So it seems to me, if you agree with that approach, that the real question we've got to answer is, what is the private debt going to do and what is the public debt going to do? And the thing that bothers me about our international debt is that a lot more of it now than ever before is going to finance the public debt, which is primarily being generated by deficit spending and which I don't think anybody could argue is wealth-creating. Certainly it's not creating assets that would pay off those loans.

Do you share that concern?

Mr. GREENSPAN. It's very difficult to try to determine precisely which item on the asset side of the balance sheet is financed by which item on the liability side. But it is certainly the case that our aggregate amount of external borrowing that is measured by the current account deficit in the most recent past has been exceptionally high, as indeed our Federal deficit has been. And when one is balancing the various different accounts one can clearly say that there is an increasing proportion of external finance which goes directly and indirectly to finance the Federal deficit. It's not strictly the question of how much direct Federal securities is purchased by foreigners. That's not what I'm talking about.

But leaving that particular concept aside, I would certainly agree that the issue of debt is crucially related to the question of whether the employment of that debt was used to produce an asset which will create the resources to pay both interest and principle on the debt and more.

Senator GRAMM. Would you agree, Dr. Greenspan, that public debt in general does not do that?

Mr. GREENSPAN. I would agree with that.

Senator GRAMM. Finally, Mr. Chairman, let me say I don't want to get back into this debate about Freddie Mac. I think I agreed with our colleague from New York. I think, however, that we ought not to miss an opportunity to liberate the capital of institutions that are capital starved. If there are legitimate concerns about it, then we ought to move quickly to resolve them. We ought to ask the questions and we ought to get the information, and then we ought to move ahead if in fact there is a general consensus that this is a good idea. We do have a very severe capital shortage in the savings and loan industry. If we can liberate over $1 billion of capital, I think we ought to do it.

The CHAIRMAN. Senator Graham.

Senator GRAHAM. Thank you, Mr. Chairman.

FEDERAL RESERVE POLICY AND THIRD WORLD DEBT

I would like to ask some questions relative to the Federal Reserve policy and Third World debt. Some commentators on the re-

cently concluded Toronto summit have suggested that the failure to come more fully to grips with that issue was the major deficiency of the summit and that it would therefore be the first priority of the next economic summit.

If you were preparing to advise the next Secretary of the Treasury and the next President in preparation for the economic summit as to an evaluation of the way in which the United States has dealt with the Third World debt to date and any changes that might be appropriate beginning with the new administration, what advice would you give?

Mr. GREENSPAN. Senator, when I came into office almost a year ago, I had a number of differing notions as to how to resolve what was clearly an extraordinarily difficult problem, and it is really quite interesting that when you get, as I have, into the day-by-day details and the whole financing process and the whole issue of relationships between creditors and debtors and banks and financial institutions, you begin of necessity to see where the real crucial issues are.

The one thing that has struck me as upfront in all of this is how important the resolution of this debt question is in general and how necessary the solution to the problem is. The crucial initial focus of where one starts in resolving this problem is the economic policy actions of the debtor nations.

It's fairly obvious that if economic policies are adequate to resolve the difficulties that a lot of these debtor nations have, both they and the international financial system will come out of this probably strengthened, having learned basically how to deal with this extraordinarily difficult problem.

If there are inadequate economic policies, there is no solution, of which I am aware, that's credible over the longer run to resolve this debt problem. I think that the most recent action in history of, for example, Brazil, is really quite illustrative. As you know, a year or so ago, Brazil introduced a unilateral moratorium on payments and, in retrospect, upon relooking at what was gained from all of that, the new finance minister, Mailson Nobrega, concluded it was negative to Brazil's interest and immediately reversed it and endeavored to restore far more sensible policy approach. He has moved back into very detailed discussions and very fruitful discussions with the commercial banking system.

I think that what we are learning from this process is that when the finance ministers and various other members of the economic team of the debtor nations look in detail at this issue, they recognize that step No. 1 is what they do. And I think that we—that is, the United States and the next administration—should do whatever we can do to see to it that their actions are implemented in a most productive way and in a manner which induces their creditors, who obviously want them to succeed, to be as helpful as possible.

That's essentially the process which currently is the policy of this country. I must say to you that I think it has the highest probability of achieving more than all of the various different alternatives which I've been exposed to. Most of the alternatives require some very large bailouts with taxpayer money, which I think would turn out actually to be counterproductive. At the moment, I

would recommend that we endeavor to enhance the process which is currently in place.

Senator GRAHAM. So, in summary, your recommendation to the next administration would be a continuation of the current policy?

Mr. GREENSPAN. Yes. It's the policy which endeavors on a case-by-case basis to recognize that the only way to get individual countries back on a basis which gives them access to the international financial markets on a voluntary basis is to go in the direction we're going.

My major concern is that if we fail in doing that, these debtor nations will be out of the private markets for a generation, as they were the last time they ran into difficulties in the 1920's. That, I might add, would be a tragedy not only for them but for the whole international financial system.

Senator GRAHAM. Thank you.

The CHAIRMAN. Before I recognize Senator Heinz, I ask unanimous consent that a statement by Senator Chafee appear at the beginning of the hearing before the chairman was recognized.

Senator Heinz.

Senator HEINZ. Mr. Chairman, thank you.

CURRENT ACCOUNT DEFICIT AND IMPORT OF FOREIGN CAPITAL

Chairman Greenspan, earlier you referred to our current account deficit and this country's imports of foreign capital. You observed that the United States is living beyond its means. We have accumulated a $400 billion debt to other countries and there are some estimates that our debt could reach $1 trillion by the early 1990's.

Some people say that the United States is importing a lot of capital to pay for current consumption and that we cannot continue to follow that policy. However others say those imports of capital are really an indication of strength in the United States' economy and that this country is an attractive place to put your money.

Which of those two views is correct?

Mr. GREENSPAN. At various different times, both of them are correct.

Senator HEINZ. What about the present?

Mr. GREENSPAN. The trouble with my answering is that the bottom line in any short-term period is the direction of the exchange rate, and that's a topic which I think I'm probably wise to stay away from.

Senator HEINZ. But that's the precise area I wanted you to address.

Mr. GREENSPAN. I'm delighted I fended you off in advance. [Laughter.]

Senator HEINZ. Would you agree that today the single most important determinant of international exchange rates is the level of interest rates in our country?

Mr. GREENSPAN. It's certainly one of the elements. I think the more general notion I would put forth is that the exchange rate is being determined, to a very substantial extent, by the willingness of foreigners to hold dollar-denominated assets relative to assets denominated in other currencies. And while obviously differential in-

terest rates are a crucial element in that determination, it is by no means the only element.

Senator HEINZ. In your view, what are the other key elements?

Mr. GREENSPAN. Well, I think it's interesting that when you try, for example, to examine why the American dollar rose so sharply from 1983 through 1985, in most of that period the real interest rates on dollar-denominated securities were not increasing relative to interest rates denominated in other securities.

Senator HEINZ. Were they relatively higher?

Mr. GREENSPAN. They were higher, but remember, the spread between real interest rates will determine the spread between currencies or the exchange rate, not whether it's going up or going down.

Senator HEINZ. What you're saying then is that confidence in an economy is another key factor.

Mr. GREENSPAN. Yes, and I think it's crucially so.

Senator HEINZ. I think there would be very few people who would disagree with that.

There are some people who say that the United States is in dire straits, and that we are in an irreversible economic decline. In support of that view, they cite statistics that show that real disposable income per capita has been stagnant for 15 years or so. They also cite our relatively poor productivity and the huge trade deficit.

In contrast there are other people who say that the economic policies that we are following are totally sound, that these policies are responsible for nearly 6 years of economic growth, and that we should continue to follow those policies that have worked so well because they will continue to work well in the future.

The former is a pessimistic view of this country. The latter is an optimistic view of this country. Clearly, the view that foreigners take, whether it's one or the other or someplace in between, is quite material to where the dollar lies in international currency values.

Which of those views comes closest to your own?

Mr. GREENSPAN. I must say I'm impressed with the improvement in productivity which has occurred in recent years, especially in manufacturing. The irony of that is it probably it was at least partly the result of competitive pressures coming from abroad as a consequence of a rise in the dollar, which in turn induced an awful lot of endeavors on the part of manufacturing companies to pare down in many instances what clearly in retrospect was a loaded cost structure.

Whatever one may say about the United States in the 1970's and the difficult periods we had in the late 1970's, the most recent period has been really quite impressive and in one respect surprising. I don't think any of us who were in the forecasting business, as I was as a private citizen, would, 1½ years ago, have essentially projected the developments that have emerged over the previous times.

Senator HEINZ. Aren't there times though, when being a private citizen felt good?

Mr. GREENSPAN. Many times.

Senator HEINZ. If you were persuaded that one view was right and the other was wrong, would it not make a difference in the

way the Fed conducted its policy? If you adopted the pessimistic view, would the Fed's policy be different than if it adopted the optimistic view that I described a moment ago?

Mr. GREENSPAN. I don't think that the two views are in sufficiently constructed detail for me to then apply monetary policy to that because I don't think——

Senator HEINZ. Let me suggest a hypothesis. You may disagree with it. I'll try and be brief because my time has expired and Senator Bond deserves his time.

If indeed the pessimistic view is correct, would it be reasonable for the Fed to follow a policy that would allow the dollar to drift lower in order to make our exports more competitive and imports more expensive?

Mr. GREENSPAN. Well, merely allowing the dollar to drift lower doesn't automatically create that phenomenon, because if in the process a falling dollar engendered an acceleration of inflationary forces in the United States, the cost competitiveness of American exporters would not be improving vis-a-vis those of our foreign competitors and could very well in the end turn out to be counterproductive. History is strewn with experiences of individual companies trying to improve their competitive position through devaluations and failed.

Senator HEINZ. Mr. Chairman, Chairman Greenspan has been very responsive to my question. Just as a concluding comment I would observe that it's quite remarkable that the dollar has fallen as much as it has over the last 2 years without any resurgence of inflation. Therefore, I'm not sure I totally understand the rationale for Chairman Greenspan's last comment. However, I am sure that there will be other occasions when we can pursue this matter further.

I do want to draw specifically to the Fed's attention a very significant report. This is the first part of what will be a much longer study by the Office of Technology Assessment. It's a study that many of us requested about 2 years ago. It was called "Paying the Bill: Manufacturing and America's Trade Deficit."

The reason it struck me as relevant is that Chairman Greenspan indicated that he was impressed with the improvements in America's manufacturing productivity in recent years.

This report suggests that our improvements in the manufacturing sector, while significant when compared to the 1970's are not enough when compared with what other developed countries are doing today. At best, we are not falling behind. At worst, there are many areas where we are continuing to lose our competitive advantage and lead, in terms of both productivity and technological advancement.

I ask that the Fed please study this report carefully. Perhaps it's worth further discussion and even a hearing to get Chairman Greenspan's views and that of other experts on this report. I thank you, Mr. Chairman.

The CHAIRMAN. Senator Bond.

Senator BOND. Thank you, Mr. Chairman. I'm always happy to accommodate my friend from Pennsylvania in order that we can hear the discussion that Chairman Greenspan has had with us.

I want to follow up on the exchange rate question because it came up yesterday in testimony by a distinguished private economist before this committee, who said that really he thought the Fed and particularly the Treasury Department ought to be placing more emphasis on maintaining the exchange rate within a narrow range. Not fixing it, but keeping it in a narrow range because of the importance of that exchange rate for fiscal and monetary policy, the interdependence of our economy with the world economy.

He suggested that some of the problems we have seen and may see are more likely to come because of exchange rate fluctuations.

I would appreciate your views and discussion on that issue.

EXCHANGE RATES

Mr. GREENSPAN. Well, Senator, I think that we certainly agree that exchange rate stability is a desirable goal. It's clearly something that not only we in the United States believe but it is the general view of the international financial community—very specifically the G–7 finance ministers and central bank governors who are largely in charge of implementing, on a day-by-day basis, exchange rate policy for the major trading nations of the world.

There is no question that instability in the exchange rates would create risk premium, create instabilities in other economic variables, and clearly is not something which would enhance economic growth either for the United States or for our trading partners.

Senator BOND. I was most interested again to hear your discussions about the problem of the burden of debt going beyond the Federal debt in our system.

What would be your suggestions with respect to tax policies to either encourage savings or to discourage borrowing? And what could be done to encourage an increase in personal and corporate savings in this country, in addition to the need to balance our Federal budget?

Mr. GREENSPAN. Senator, we have over the years endeavored to use the tax system in order to enhance savings, to basically enhance the proportion of equity to debt in the system and to largely counter the problems which excessive debt and excessive borrowing clearly create.

It's a slow process. I don't think we've been anywhere near as successful as I would like to see us be. The types of things we have to do in the tax area to significantly increase savings and discourage debt, I suspect, are very politically difficult to do.

I've concluded, as a consequence, that it is probably far easier and, for the moment, perhaps just as productive to recognize that if we bring the Federal deficit not only down to zero but allow it to move into surplus, we will in fact be creating many of the very positive things which we need to offset the excessive debt creation that one has seen over the most recent period.

If I were to recommend a specific focus of policy which has got the largest economic impact on this problem, it's clearly moving toward a Federal surplus over the years as fast as we can.

Senator BOND. Finally, with respect to that budget deficit, you played the lead in the very important work of the commission to fix the Social Security System.

What's the proper place for Social Security in the Federal budget? Should it be off budget or should we be using the surplus to pay off our other government obligations?

Mr. GREENSPAN. Senator, in a technical sense, it should be on budget in the sense that we look at the total economic impact of the Federal Government's activities. If one chooses to take it off-budget and focus on the non-Social Security trust fund budget and if one endeavors to take that budget deficit—which will obviously be larger than the current one in the unified budget deficit—down to zero or balance, we will automatically create the type of surpluses which we will need in the aggregate unified budget system.

So whatever the Congress ultimately decides to do—and at the moment, of course, it is scheduled to go off-budget—one should perceive of the necessity to create a surplus in the unified total budget including Social Security funds for the type of increase in domestic savings which I think this Nation needs.

Senator BOND. Chairman Greenspan, my sincere thanks for your most informative testimony.

Mr. Chairman, I appreciate your indulgence and patience in allowing me to ask questions. Thank you.

The CHAIRMAN. Well, I'd be delighted to have you go on. I'll tell you, our problem is that the Democratic Caucus is meeting right now at 11:45 with President Dukakis and Vice President Bentsen and, for that reason, as you can imagine, they're almost as big an attraction as you are, but I'm going to stay here because I've got some questions for you that I'm sure you will answer with at least as much information as the next President and Vice President will.

Senator BOND. Mr. Chairman, would you be so kind as to ask that pair who's defense and international policies they're going to follow, the Governor's or the Senator's? It would be most interesting to learn. I'd be delighted to hear that discussion.

The CHAIRMAN. Well, I think they will follow the very wise policies that will come from a blending of the exchange of information and intelligence on both sides which is very high. [Laughter.]

Chairman Greenspan, it's a delight not to have to run again for public office, I'll tell you, because when you don't have to run again for public office you don't have to take the position that all Members of Congress and administrations take that we avoid a recession at all costs. We've heard that from Senator Sasser and Senator D'Amato today, two fine Senators, but I think that can get us into a lot of trouble.

I notice you didn't indicate that. You indicated we wanted to mitigate recessions and wanted to do all we can to make the recession as painless as possible, but that's the price you pay for a free economy, in my view, and we're going to have to face that.

One of the things you do to get on top of the problem of excessive debt and deficient savings it seems to me is to let interest rates rise. That is the way it would seem to me that you penalize debt, isn't it? We know that borrowing to buy homes, borrowing to buy cars is enormously sensitive to the level of interest rates.

Mr. GREENSPAN. I think it is certainly true that mortgage interest rates do impact to a significant extent the desire on the part of individuals to buy homes and therefore their willingness to take out mortgage debt.

It's not clear that that's true in consumer credit in general or, as we have observed in recent years, credit cards.

But in general, it is certainly the case that in the consumer area that the mortgage interest rate is a crucial variable.

The CHAIRMAN. Now how about the effect of the level of interest rates on savings? The testimony by and large has been that savings is quite inelastic and that even if interest rates rise sharply people are not inclined to save more. Is that correct?

Mr. GREENSPAN. I think that's correct in a general sense. Obviously, if a specific depository institution raises its interest rate, it will gain savings. But the total is very insensitive and very inelastic to changes in interest rates.

The CHAIRMAN. Let me ask you about the discount rate. In recent weeks, the Federal funds rate has been averaging near 7⅝ percent. Yet the discount rate is only 6 percent. Ordinarily, the discount rate would be set at a level that is much closer to the short-term money market rates.

Some are beginning to suggest that the Fed is reluctant to raise the discount rate for fear of the impact of a rate rise on the Presidential election. Others claim that it would only send the dollar higher.

Why has the Fed been reluctant to make an adjustment in the discount rate that seems justified given the level of current short-term interest rates and the implication in your testimony that they may have to rise some more?

DISCOUNT RATE

Mr. GREENSPAN. Senator, the relationship between the Federal funds rate and the discount rate has varied quite considerably over the years. Spreads have been both significantly higher and significantly lower in past periods.

We have a number of instruments that can be employed to address specific problems of monetary policy and the Federal Open Market Committee, in conjunction with the Federal Reserve Board, makes choices about what the best mix is at any particular time.

It's been the judgment to date of the FOMC and the Federal Reserve Board that the current relationships are satisfactory.

The CHAIRMAN. Yesterday, the panel of experts who appeared agreed with you that fiscal tightening could produce an expansion when accompanied by monetary ease. The panelists suggested that a substantial reason for this was that the change in the policy mix would cause the dollar to fall and we would then experience further improvement in our trade balance and export-related investments.

Your analysis in February suggests that we would see an expansion if the deficit is reduced substantially. Today, you say that fiscal contraction will increase confidence in U.S. policy and may cause the dollar to rise.

If the dollar rises and the deficit is reduced, how will an expansion result?

Mr. GREENSPAN. I'm sorry, if what?

The CHAIRMAN. If the dollar rises and the deficit is reduced, how will that cause an economic expansion?

Mr. GREENSPAN. We're talking now about the Federal deficit?

The CHAIRMAN. That's right.

Mr. GREENSPAN. If the Federal deficit comes down, real domestic dollar denominated interest rates are likely to fall significantly. There is unquestionably a very substantial backlog of capital investment mainly for modernization projects that would be forthcoming in this country if real long-term interest rates declined.

And all of the various other suppressing elements in the economy would be clearly offset by that. What we don't have enough of is net capital investment. Gross investment is quite high, but it's relatively short-lived assets with high depreciation rates and the trend of net capital investment to net national product has been going down for quite a number of years. It is that which would turn around and that which would support the economy.

The CHAIRMAN. But wouldn't that have an adverse effect on demand? As the deficit goes down, there's less stimulus from the Government spending.

Mr. GREENSPAN. Certainly.

The CHAIRMAN. And the relationship between taxing and spending is adverse as far as the economy is concerned and as the dollar rises, of course, we sell less abroad and buy more from abroad. Wouldn't that tend to overcome the modification in interest rates?

Mr. GREENSPAN. I don't necessarily think so. I think that using the hypothetical example which we're using, the missing element in there is precisely the reaction of domestic capital investment. One can reduce purchasing power or effective demand from the decline in the Federal deficit and one can reduce the export demand one could get if one hypothesizes that we lose some of that, but that could be fully offset and more by domestic capital investment if the combination of both of those elements brings real interest rates down.

I'd say the conclusion of where you come out in the example is really indeterminate without being far more specific about the various relationships that exist amongst those elements in the economy.

The CHAIRMAN. My time is up, but I get the feeling that you seem to feel that maybe we can avoid a recession. If that happens—of course, these are the elements—reducing the deficit and having the dollar rise it seems to me are two factors that I think in the long run would be helpful to our economy, but I would think we would have to go through a recession at the same time. That's one of the things that brings interest rates down.

Mr. GREENSPAN. I would say, Mr. Chairman, that there is not enough information, so to speak, in that hypothetical forecast to tell me whether or not there's a recession without knowing what domestic capital investment is, and the lower interest rates could be a significant event in today's environment should those events occur. I'm obviously not subscribing to that as a forecast because that's not the way we look at things.

The CHAIRMAN. You're disagreeing with William McChesney Martin and arguing that you can push a string?

Mr. GREENSPAN. I'm not aware that this is string pushing. I'm just aware of the fact that the type of scenario that is out there, the type of international adjustment process, can in fact be implemented over the longer run without a recession. That it can be done is certain. That it will necessarily happen, obviously I can't comment on.

The CHAIRMAN. Thank you. Senator Bond.

Senator BOND. I don't have as distinguished a luncheon as you do to go to, so go ahead.

The CHAIRMAN. Some producers of export goods have claimed that they would not invest in new capacity despite the rise in utilization rates because they did not feel confident that the dollar would stay at its current level.

Is the rise in the dollar over the last couple of weeks going to fuel these doubts and cause export firms to cut back on capital formation plans?

Mr. GREENSPAN. I haven't seen any evidence of that, Senator. On the contrary, at the moment, orders for export goods are really quite impressive.

The CHAIRMAN. Yesterday in testimony before the committee David Hale of Kemper Financial Services suggested that the exchange rate targets be made explicit by disclosing them to the public.

Do you support that idea?

Mr. GREENSPAN. No, I do not.

The CHAIRMAN. What are the costs of making public the target zones for exchange rates?

Mr. GREENSPAN. I think that what would happen very quickly is that we would engender a tremendous amount of speculation around the targets and ultimately make the policy of implementing them exceptionally difficult. The net result, as I would see it, would be counterproductive.

BAILOUT OF S&L'S

The CHAIRMAN. Now members of this committee, including the distinguished Senator from Texas who's one of the brightest men in the Senate, have argued that we must not under any circumstances bail out the S&L's. But I don't see that we have much choice if things worsen because we have a promise to, of course, pay insurance on all deposits under $100,000 which is most of the deposits.

Some have suggested that the resolution of the S&L crisis will entail using funds from the interest earnings of the Federal Reserve on its open market portfolio to recapitalize the savings and loan insurance fund.

In 1987, the Fed returned to the Treasury over $17 billion. Do you favor using these funds to recapitalize the S&L industry?

Mr. GREENSPAN. Let me just say that what we are talking about is precisely the same as appropriations and expenditures from the budget because to the extent that you divert funds that we earn and return to the Treasury, receipts are lower in the total Federal

budget. It makes no difference so far as the Federal budget deficit is concerned whether you do it that way—that is, take money off the earnings of the Federal Reserve—or you expend money on the outlay side.

The CHAIRMAN. There's a critical difference. Members of Congress don't have to vote for that appropriation. [Laughter.]

Mr. GREENSPAN. I quite agree.

The CHAIRMAN. And the President can say I can't handle these fellows in the Federal Reserve, they're appointed and they're independent and they should be and if they want to do it that way, then God bless them.

Mr. GREENSPAN. Without commenting on the very last remark, I'm not certain it's good precedent or good policy.

The CHAIRMAN. Now in public statements you've supported an increase in the gasoline tax.

Mr. GREENSPAN. That's correct.

The CHAIRMAN. I doubt that Vice President Bentsen will support that recommendation.

Wouldn't a gas tax depress the price of energy and exacerbate the regional depression in the oil-producing regions and wouldn't it also make the S&L crisis worse in view of the problems in Texas and California?

GASOLINE TAX

Mr. GREENSPAN. No, I don't think so, Mr. Chairman, because I believe that the world price of gasoline is determined not in the United States but in the world, and it's essentially derived from the price of crude oil. So in the sense of the tax depressing the price of gasoline, there's no evidence that that would happen.

It presumably would depress the demand for domestic gasoline in the United States and in that regard, over the long run, I consider that a plus, not a negative. Since gasoline consumption in the United States in and of itself is a remarkably large proportion of aggregate world oil consumption, I would assume that to the extent that the tax lowers domestic gasoline consumption, as it would, one can argue that, on the margin, it lowers long-term crude oil prices and has some feedback effects here. But my suspicion is that those numbers are really quite marginal and will have very little effect on the oil-producing economy of the United States.

The CHAIRMAN. Chairman Greenspan, one of the statistics I'm sure you look at in considering inflation is capacity utilization and obviously if we move toward a higher level of capacity utilization there's more inflationary pressures.

Dr. Cooper, of Harvard, has recommended broadening our view there. In your testimony, you suggest that capacity utilization is high and that this will contribute to a rise in prices in the years ahead. At our last hearing, Dr. Cooper suggested that as long as there were no import barriers in a sector that full capacity utilization would lead to greater imports rather than a rise in prices. Dr. Cooper suggested that one focus on the state of global capacity utilization in the industry in question rather than on national rates of capacity utilization.

Do you agree with Dr. Cooper's emphasis on global capacity utilization?

Mr. GREENSPAN. Well, only in a general way. Remember, that to the extent you pick up imports to supply shortages in the United States, you basically have to pay for them and one would presume at the extreme that that would cause the dollar's exchange rate to fall which would increase the domestic price of the imports over time which in turn would create the same inflationary problems that we are concerned about.

The CHAIRMAN. Of course, time is an important element here, isn't it?

Mr. GREENSPAN. Yes.

The CHAIRMAN. How long would that time be? Would it be several years?

Mr. GREENSPAN. I don't know. Yes, it could conceivably be. However, I do think there is a different question and there is a sense in which I would agree with Dr. Cooper. What we really are concerned about is deliverability of products by our manufacturing producers and the way we measure that best is their ability to supply products quickly to their customers. At the moment we have nonaccelerating delivery lead times on materials—meaning when customers come to the salesman for delivery they are not being quoted excessively increasing lead times with the exception of steel and aluminum and a few other things. But in general not.

What that is saying is that we still have adequate deliverability capabilities in American manufacturing. Our concern is that we will get squeezed and that will all of a sudden cause huge stretchouts in delivery lead times which is where the inflation comes from.

The reason that we have adequate deliverability capabilities at the moment is that, at least in part, we do have access to imports and to products and materials from abroad. So in a certain sense, what Dr. Cooper is arguing for already exists. My concern about the way he put it in a generalized sense is that in the longer run it probably doesn't work.

The CHAIRMAN. One final question. Do you favor paying interest to banks on their required reserves?

Mr. GREENSPAN. That's a subject which gets to the whole question of interest on demand deposits and a variety of other issues. I do think that, as I have thought over the years, we should look at the whole question of paying interest on demand deposits. That would bring forth the whole question of paying interest on reserve balances. That, however, would be such a major change in the way the Federal Reserve System functions that I think we have to give it very considerable thought.

The CHAIRMAN. Would that have an adverse effect on the budget deficit?

Mr. GREENSPAN. Perhaps.

The CHAIRMAN. Why not? It's money that would otherwise go into the Treasury, wouldn't it?

Mr. GREENSPAN. In net, it could. It would depend on a number of other things.

The CHAIRMAN. Why wouldn't it? I would think it would inevitably have that effect.

Mr. GREENSPAN. Well, there's no question obviously that in the immediate short run it obviously reduces the amount of moneys that are paid to the Treasury, but to the extent that that creates profits in the commercial banking system, part of it gets absorbed by the corporate income tax.

The CHAIRMAN. Well, as you know, I love the banks, but the taxes they pay to the Federal Government are not overwhelming. They have all kinds of ways of diminishing those taxes. Some people tell me the tax they pay is a matter of their public relations rather than any real requirement.

Mr. GREENSPAN. I'm not going to comment on that.

The CHAIRMAN. OK. Senator Bond.

Senator BOND. Mr. Chairman, just one last question. One of our colleagues asked if I would inquire what impact Chairman Greenspan thinks the drought may have on the banking system. We have had banks in trouble in our part of the country in the heartland as a result of agricultural and commodity loans. Do you see any increased stress on agricultural lending banks that may have been put in a precarious position from the drought?

Mr. GREENSPAN. Well, as you know, Senator, prior to the drought, the agricultural banks were coming back quite rapidly and doing rather well. I think this probably will stall some of the improvement in some of the cases, but I don't see it as something which will throw us back into the types of difficulties that we had previously.

Senator BOND. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Mr. Chairman. You have been superb and I can't thank you enough for your fine testimony.

The committee will stand adjourned.

[Whereupon, at 12:10 p.m., the hearing was adjourned.]

[Response to written questions and additional material supplied for the record follow:]

Chairman Greenspan subsequently submitted the following in response to written questions from Chairman Proxmire in connection with the hearing held on July 13, 1988:

Question 1: It is often suggested that cutting the federal budget deficit will be least painful if it is offset by economic stimulus in some other sector of the economy. Since early 1985 the decline in the exchange value of the dollar has provided stimulus to export and import-competing industries.

- According to the Federal Reserve's analysis, if the exchange rate remains at current levels, how long will it be before the adjustment to the decline of the dollar since early 1985 completes propagating through the economic system and ceases to provide substantial stimulus to the economy?

- According to the Federal Reserve's analysis, given current exchange rates, at what point in time will the current account balance begin to deteriorate because the increment in external debt service caused by the current account deficit begins to exceed the improvement in the merchandise trade deficit?

Answer: The large net decline in the dollar's value since early 1985 has set in motion forces that should continue, for some time to come, the improvement in our external position that we have been experiencing. Conventional models of the U.S. current account, including some of those used by the Federal Reserve Board staff as well as other prominent models, suggest that most of the shifts in demand for exports and imports resulting from an exchange rate change are realized within about two to three years. Thus, if exchange rates were to remain unchanged, these models suggest that the U.S. current account might begin to deteriorate after 1990 or so, both because of rising debt service and because the level of imports would still exceed the level of exports, implying larger absolute increases in imports under reasonable assumptions about other factors.

However, there is a wide range of uncertainty surrounding these model results, especially given the unprecedented size of exchange rate movements. Moreover, these models do not even purport to capture all aspects of the process of external adjustment. For example, the improvement in the competitive position of U.S. firms might well induce an increase in productive capacity that would impact favorably on our external position. Actions to reduce our federal budget deficit would work in the same direction. In short, we simply do not know enough to predict when, if ever, the ongoing improvement in our current account will be reversed, even at current exchange rates.

Question 2: On Monday, July 19th, the New York Times reported the results of three studies on the dynamic adjustment of the trade balance and current account balance in the United States in the absence of further dollar depreciation. The study by Data Resources cited in the article suggests that the trade deficit will stop declining in 1989 and begin to rise thereafter. The WEFA Group's study shows a similar result with both the trade deficit and the current account deficit beginning to widen again in the early 1990s. The third study, by the Institute for International Economics, suggests that even without the recent appreciation of the dollar the trade deficit will not dip below $100 billion before it begins to grow again. This last study may be the most discouraging because it does not even account for the recent appreciation of the dollar.

- o If one assumes that the dollar does not depreciate further does the Federal Reserve's model predict a result that differs markedly from the results described in the New York Times article?

- o Absent a further decline in the dollar and a recession, how will the United States achieve a balanced current account in the next several years?

Answer: Some of the models used by staff at the Federal Reserve Board show results not unlike those of the studies cited. That reflects the fact that the same basic structure underlies all of these models. Less conventional models that take into account a wider range of factors, including supply responses of producers, yield somewhat more optimistic results. Moreover, no model can take account of all factors bearing on external adjustment.

The United States has achieved an enormous recovery in competitiveness as a consequence of the exchange rate adjustments of the past several years coupled with continued increases in manufacturing productivity and restrained increases in wages and prices. To ensure that this is sustained and results in a

continuing improvement in our external balances, we must act to avoid excessive pressure on our productive capacity. Actions to reduce the federal budget deficit are certainly desirable in this context. A monetary policy like the current one, designed to preclude additional inflationary pressures, will help also to improve our external position. One cannot be certain that those policies would be sufficient to restore our external accounts to a more sustainable configuration within the next several years, but they could at least ensure that we continue to move in the right direction.

Question 3: In a panel discussion at the February hearings, Professor Richard Cooper of Harvard University said the following:

> "... there is a serious anomaly in the present U.S. arrangements and that is that the Federal Reserve is formally in charge of domestic monetary policy but the Treasury is formally in charge of exchange rate policy. That was an arrangement that worked perfectly well under the Bretton Woods system in which the U.S. was the passive player and we didn't intervene actively in exchange markets. That is an anomalous arrangement in a world of flexible exchange rates and it is one of the sources of the tensions that exist between the Treasury and the Fed today."

- Do you agree with this statement?

- The Federal Reserve was criticized by the Administration in late 1987 and early 1988 for the slow growth rate of money last year. Do you not find that difficult to accept in light of the fact that a significant reason for the monetary slowdown was that the Federal Reserve was defending the dollar to live up to an exchange rate agreement made in conjunction with the Administration in February of 1987?

Answer: In the Federal Reserve's conduct of monetary policy, the value of the dollar on foreign exchange markets is an important consideration. The exchange rate is a central price variable in the economy, with implications both for U.S. inflation and output and for resource shifts across sectors. We cannot be indifferent toward it nor can we ignore the information it may provide. Indeed, conditions in exchange markets at times have been accorded very high priority in our policy decisions. We also work closely with the Treasury in the formulation and implementation of U.S. exchange rate policy. Senior Treasury officials consult extensively with Federal

Reserve officials in a cooperative effort to ensure financial stability, better balance in the nation's international accounts, and improved prospects for sustainable economic growth over the long run.

During 1987, the exchange rate was given a great deal of weight in monetary policy deliberations, but was not the exclusive, or even the major, factor behind the rise in interest rates and the slowing of money growth. Instead, the major factor was concern about a resurgence of inflation more generally. At times during the year, soaring commodity prices and sharp declines in the dollar and bond prices signaled the possibility of greater inflationary dangers. With real GNP growing well above its long-run potential and levels of resource utilization climbing at an unsustainable pace, the Federal Reserve had to be especially alert to these and other indications of potential inflation pressures.

Question 4: In a recent book entitled, "Managing the Dollar", by Yoichi Funabashi, the author discusses an episode where the exchange rate between the yen and the dollar was managed to promote the reelection of Mr. Nakasone in Japan. Secretary Baker of the Treasury allegedly made comments on the exchange rate to stop the yen from appreciating against the dollar just before the Japanese elections. There is also an insinuation that the Japanese provided a similar courtesy to the Administration before the 1986 Congressional elections. Mr. Hale, in a panel hearing on July 12, mentioned this in his testimony. He also cited a Financial Times editorial on July 2nd which espoused this view. An article in the New York Times on the same day suggested that the dollar was being manipulated to help George Bush. Since that time the Washington Post and Jeffrey Garten, a New York investment banker writing in the New York Times, have also expressed concern on this question.

- Why would the Japanese or other foreign powers prefer George Bush to Michael Dukakis?

- Do you know of an agreement between the Japanese and the Treasury in 1988 that is similar to the one Mr. Funabashi described in his book? Are the Japanese and other foreign powers capable of acting to stabilize markets to help a Bush Administration get elected as Mr. Hale and the press have suggested?

Answer: It would be inappropriate for Federal Reserve officials to speculate about the political preferences of individuals in other countries or about their political strategies. I know of no agreement between the Japanese and the Treasury that is similar to the one described in Mr. Funabashi's book.

Question 5: In recent months Governor Johnson has stated that three indicators are helpful when assessing the suitability of monetary policy. The behavior of an index of commodity prices, the term structure of interest rates, and the foreign exchange value of the dollar.

- The December 1987 and the June 1988 issues of the OECD Economic Outlook suggest that foreign purchases of long-term bonds, particularly by Japanese institutional investors, occurred in 1985 and 1986. If foreign holders sell long-term securities will not the dollar decline at the same time that long-term interest rates rise? What has been the correlation between the steepening of the term structure and the change in the yen-dollar exchange rate in since the end of 1986?

- At the panel hearing on July 12, Dr. Rudiger Dornbusch suggested that the level of commodity prices is affected by the dollar exchange rate. That is presumably because most commodities are priced in dollars and when the dollar depreciates the demand for commodities is stimulated in the industrial countries whose currencies have appreciated. Dr. Dornbusch claims that, "Using commodity price-oriented monetary policy may simply amount to a disguised exchange rate target." What is the correlation between exchange rate changes and changes in commodities prices?

- Are not movements in commodity price indices, the term structure of interest rates, and the foreign exchange rate highly correlated? Does each convey much information that is independent of the others?

- In recent weeks many commodity prices have fallen, the dollar has risen, and the term structure of interest rates has flattened. Is that an indication that monetary policy is becoming too tight?

Answer: A desired shift out of long-term U.S. securities into foreign currency-denominated assets in response to, say, worse-than-expected U.S. trade figures would tend to cause U.S. long-term interest rates to rise and the dollar to depreciate. On the other hand, a desired shift out of long-term

U.S. securities into short-term dollar assets in response to, say, an anticipated Federal Reserve tightening, would tend to be associated with rising U.S. long-term rates and an appreciation of the dollar. Thus, depending on the nature of the new information, changes in U.S. long-term rates can be associated with either increases or decreases in the dollar's exchange value. The simple correlation coefficient between weekly changes in the U.S. term structure (30-year bond minus 3-month bills) and percentage changes in the yen-dollar exchange rate since the end of 1986 is -.03. The correlation of the levels is -.33.

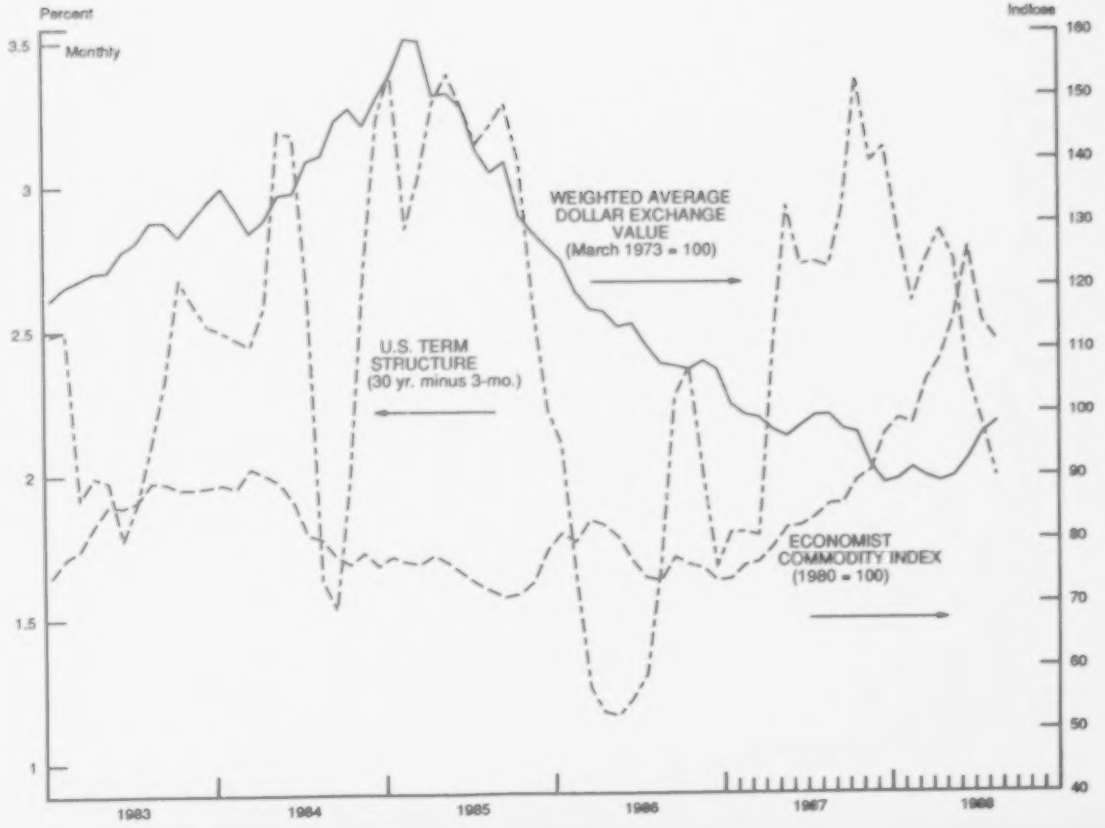
Changes in the dollar prices of internationally traded commodities should, indeed, be negatively related to changes in the dollar's exchange value since it is world (not just U.S.) demand and supply which determines these prices. The correlation coefficient between monthly percentage changes in the Economist commodity price index (in dollars) and monthly percentage changes in the dollar's weighted average exchange value in terms of other G-10 currencies since 1982 is -.20.

The correlation coefficient between monthly levels of commodity prices and the dollar's weighted average exchange value from end-1982 is -.50; between commodity prices and the term structure of interest rates (measured by the difference between the yield on 30-year Treasury bonds and 3-month Treasury

bills) is .08; between the term structure and the weighted average dollar, .20. Since none of these correlations is particularly high, it would be reasonable to conclude that each of the three variables conveys some information not conveyed by the others. (Also see attached chart.) Interpretations of the movements in any of these indicators require a knowledge of the surrounding circumstances and judgments of what factors lie behind the shifts in supply and demand. Even if these three indicators, along with others, were all moving in a consistent direction and all were reflecting the recent tightening of monetary policy, that information alone could not answer the question whether monetary policy was becoming too tight. The answer to that question would depend on the extent of the movement of these indicators and the strength of their relationships to subsequent developments in the overall economy, in particular, the general price level. Given the present risks of inflationary pressures in the U.S. economy, we do not consider monetary policy to be excessively tight in present circumstances.

Attachment

SELECTED INDICATORS



Question 6: It is often suggested that raising interest rates is necessary to arrest the formation of a wage price inflationary spiral. At the same time, interest rates, like wages, represent a cost to a business which must borrow for working capital and fixed investment.

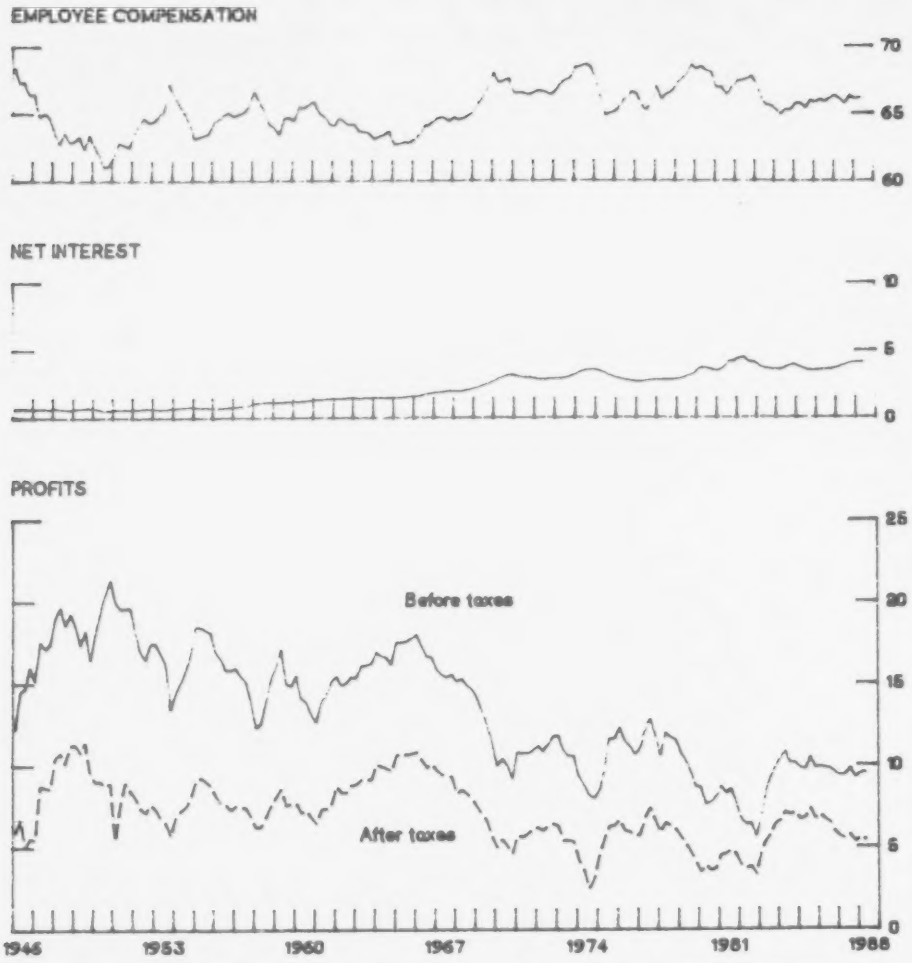
- o In the short run does a rise in interest rates create "cost push" inflation just as a rise in wages would?
- o Is it possible to generate an interest rate-price spiral which is analogous to a wage-price spiral whereby a rise in interest rates leads to an increase in prices followed by an investor reaction demanding an inflation premium in interest rates which raises costs and prices again?
- o Would you please provide to the Committee data which shows how wages, business profits and net interest shares of national income have evolved in the post world war period?

Answer: There appears to be no compelling evidence at the macro level of the interest rate-price effect you suggest. Although interest costs may be an expense that businesses will seek to cover in their pricing, the net effect of a tightening of credit conditions that is reflected in higher interest rates (especially higher "real" rates) appears to be a damping of aggregate demand and of inflationary pressures. The data you requested are attached.

Attachment

Question #6

SHARES OF GROSS DOMESTIC PRODUCT FOR NONFINANCIAL CORPORATIONS
(in percent)



Data description notes are included on a separate page.

Notes on Gross Domestic Product of Nonfinancial Corporations

Shares of Gross Domestic Product for nonfinancial corporations are expressed in percentage terms.

Gross domestic product of nonfinancial corporations represents the value added of these business operations. It has accounted for more than 90 percent of total gross domestic corporate product and more than 55 percent of the U.S. gross national product in recent years.

Employee compensation includes wages and salaries plus fringe benefits paid by nonfinancial corporations.

Net interest is the total interest paid less interest received by nonfinancial corporations.

Domestic operations of nonfinancial firms provide for more than three-fourths of total U.S. **corporate profits**.

Profits before taxes are operating profits for nonfinancial corporations, with adjustments to value inventories and capital at current replacement costs, but before corporate income taxes.

Profits after taxes differ from profits before taxes by the amount of profits taxes (including federal, state and local income taxes levied on corporate profits).

The remaining component shares of GDP that are not depicted in the charts (primarily, depreciation and indirect business taxes) averaged around 20 percent of GDP in recent years.

data source: U.S. Department of Commerce, Bureau of Economic Analysis.

Question 7: It is often suggested that, given the rate of population growth and the rate of technical progress, the U.S. economy may overheat because demand growth will exceed the growth of capacity. Those offering this prediction suggest that U.S. real economic growth cannot proceed at much more than 2-2.5 percent in the years ahead. Some also suggest that in the absence of federal budget deficit reduction interest rates will have to be relied upon to modulate demand.

- o Are the expansion of capacity and the pace of modernization of our capital stock independent of the way in which aggregate demand is restrained? Do not increases in interest rates retard capital formation and slow down the growth of future potential output and increases in future productivity?

- o What does the Federal Reserve analysis show the impact of a one percentage point increase in interest rates to be on plant and equipment investment?

Answer: It is my view that the mix of policies in the economy does have significant implications for the rate of capital formation and thus for the level of potential output in the economy. It is for this reason that I have suggested that we should be seeking to move the federal budget toward surplus, thereby easing financial market pressures and freeing up savings for investment.

One cannot quantify with precision the effects of interest rates on investment; different econometric models, employed at the Board and elsewhere, yield different results, and the outcome would vary depending on the circumstances. It is fair to say that most analysts are of the view that the short-run response of business capital spending to changes in interest rates is rather small, but that, over a period of a few years, the influence of the cost of capital on such investment is substantial. Residential investment, of course, has a more notable short-run interest-sensitivity.

Question 8: At the February hearing you alluded to the difficulties that the British had after the second world war because of their external imbalance. Some say that the U.S. debtor status gives foreign investors influence over the setting of monetary policy.

- o Do foreign creditors influence monetary policy any differently than domestic creditors do?
- o Is it the debtor status or just that capital is increasingly mobile internationally that makes the monetary management sensitive to international considerations?
- o Does that fact that foreign investors, particularly Japanese institutional investors, have chosen to invest in long-term instruments complicate the problem of monetary management, as the December OECD Economic Outlook suggests? The Federal Reserve's instruments of monetary policy management primarily affect short-term interest rates don't they? How closely linked are short-term and long-term interest rates?

Answer: The key factor making monetary management sensitive to international considerations is the high degree of international financial market integration rather than the net debtor status, per se, of the United States. Capital is extremely mobile internationally, and there are large gross asset and liability positions in foreign currencies by U.S. residents as well as large positions in dollars by foreign residents. Gross flows into and out of currencies other than "home currencies", by both U.S. and foreign residents, are a great multiple of net flows, and desired net positions can be very volatile.

Both U.S. and foreign residents will likely seek to alter their net foreign exchange exposures in response to news

that occasions a revision in exchange rate expectations, and these responses will affect actual exchange rates and, to some extent, asset prices. Whether U.S. or foreign residents, on the whole, react differently to such news is a moot point.

Long-term interest rates are influenced by a wide variety of factors, of which the portfolio preferences of a single group of investors is only one. Other factors, such as anticipation of short-term rates, inflation expectations, the perceived risk of interest rate fluctuations, real returns to capital, and the time preferences of savers probably dominate the setting of long-term interest rates. Monetary policy, which affects most directly current short-term interest rates but also expected short-term rates and expected inflation, is a key, but not determining, influence on long-term rates. Short-term and long-term rates tend to move together over time, but, given the importance of expectations among other factors not directly tied to current short-term rate levels, the linkage can be fairly loose.

Question 9: In recent months we have seen a continued rise in U.S. imports despite the decline of the dollar and the rise in price of imports. Recent data show that the most surprising strength in imports comes from capital goods imports. It appears that the rise in U.S. investment associated with improvements in the export sector is leading to an increased demand for imports.

- o Why are capital goods increasingly imported rather than purchased from U.S. producers?
- o Since these imports are being used to provide for improvements in the U.S. productive base presumably they will make the economy more competitive in the future. Should we worry about the size of our imports if they are largely used to expand domestic production possibilities for the future?
- o What foreign countries are producing the capital goods that we import?

Answer: Imports as a share of expenditures by domestic producers of durable equipment (in constant dollars and excluding motor vehicles) edged down during the first half of this year after having moved up throughout 1986 and 1987. Purchases of capital goods from domestic producers are rising very rapidly. In the first half of 1988, half of the increase in value and all of the increase in the volume of imported capital goods (1987-Q4 to 1988-Q2) can be accounted for by rising imports of aircraft, of computers, peripherals and parts, and of semiconductors.

Imported capital goods do not now appear to be a problem for the U.S. capital goods industry, which is now doing very well (after a long lean period) because of expanding markets both at home and abroad. So long as U.S. firms in general continue to expand their productive base, from whatever source

possible, the problem of servicing the debt associated with the imports of capital goods should not be a concern either.

About three-fourths of U.S. imports of capital goods come from industrial countries. Western European countries supply about 30 percent of imported capital goods, with most of the items supplied not those showing notable increases in the first half of 1988; the one exception was imports of aircraft where France substantially increased its shipments of Airbuses to the United States. Japan supplies about 33 percent of capital goods imports (about half of which were computers, peripherals and parts, semiconductors, and electric generating machinery). Canada supplies less than 10 percent of the value of capital goods imports. Among developing countries, most of the imports come from Asia. Korea, Hong Kong, Singapore, and Taiwan together account for nearly 20 percent of U.S. capital goods imports (half of which are computers and parts or semiconductors). Other countries in Asia, especially Malaysia, the Philippines, and Thailand, are particularly important in the production of semiconductors.

Question 10: Some analysts have suggested that there are public policy problems associated with running a social security trust fund surplus and a general budget deficit.

- o What are the dangers of this situation for citizens counting on future social security benefits?
- o What policy changes would you recommend to manage the situation?

Answer: I believe that, for the purposes of macroeconomic analysis, it is appropriate to look at the federal budget including the social security surplus/deficit. This provides a better picture of the government's overall contribution to the flow of savings in the economy.

There is no particular danger in running a social security surplus and a "general budget" deficit, so long as the two net out acceptably--which I believe to be on the surplus side, in light of our deficient level of national saving. However, it is important to recognize that the prospective trust fund surpluses are needed to fund social security benefits in future years, and when the trust fund balances are later run down, the negative effects on the government's overall fiscal position will magnify any deficits in the remainder of the budget. Consequently, I think it is crucial that we keep a close watch on the trends in both components of the budget.

Question 11: In his testimony at the panel hearing on July 12, David Hale referred to the fact that President Roosevelt went off of gold in 1933 to reflate the economy. Many commentators are busy citing similarities between 1929 and 1933.

- Is it not true that one significant difference between the two cases derives from the fact that the depreciation of the dollar began in 1985, two years before the crash, and the 1933 devaluation came 3.5 years after the crash of 1929?
- Does that not account for a large part of the difference in post crash performance of the real economy in the two periods?
- What other major structural differences exist in today's economy that would lead one to believe that the performance of the economy in the aftermath of the 1987 crash will differ from the experience after the 1929 stock market crash?

Answer: There are a great many differences between the economic world today and that back in 1929-33. Certainly, the decline in the value of the dollar that has occurred since 1985 is having some highly favorable effects at present, especially in sectors such as manufacturing that had not enjoyed as great a measure of prosperity earlier in the current economic expansion and that are now contributing importantly to the improvement in our trade balance.

In terms of the basic structure of the economy, one would have to identify in particular the differences in the financial system safeguards that exist today as compared with those in the earlier period. Federal deposit insurance provides significant protection against the kind of loss of confidence that might cause a negative development in one segment of the

financial markets to create problems on a broader front; likewise, the Federal Reserve is better prepared to deal with any liquidity shocks today, and, indeed, I believe that there is fairly general agreement that the steps the Federal Reserve took last fall were an important element in sustaining the strong uptrend in economic activity in the aftermath of the stock market break.

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Question 12: In his testimony on July 12th David Hale presented testimony on data provided by the Bank for International Settlements regarding the currency denomination of offshore bank deposits owned by nonbanks which shows that the proportion of total deposits in the offshore financial system denominated in dollars has fallen quite markedly in recent years. Mr. Hale believes that this phenomena would help to explain the lower than normal monetary growth in the United States and the higher than normal monetary growth abroad in recent years.

- Do you agree with Mr. Hale's analysis?
- How does this show up in the U.S. monetary aggregates?
- Mr. Hale also suggested that retail customers in the United States cannot be offered deposit accounts denominated in foreign currencies. Is this true?
- Has the Federal Reserve Board ever considered allowing domestic banks to offer foreign currency denominated accounts? Do U.S. banks lose business to foreign banks because of their inability to offer these accounts? What are the pros and cons of permitting U.S. banks to offer such accounts?

Answer: Mr. Hale's interpretation of the data appears to be flawed on several counts. First, the marked decline in the share of dollar-denominated offshore bank deposits primarily reflects valuation effects, rather than a true shift in currency composition. The sharp depreciation of the dollar on balance between the end of 1984 and late 1987 automatically would have raised the dollar value of foreign currency deposits, even if nonbank holders had kept the composition of their portfolios otherwise unchanged. After adjusting for exchange rate changes, it appears that only about one-quarter of the recorded decline in the dollar-denominated share of offshore deposits probably reflected any shifting of funds.

While the dollar-denominated share (however measured) declined, the level of dollar cross-border deposits continued to rise during this period. It increased at nearly a 7 percent annual rate, about the same pace as overall M3. Moreover, another data series produced by the BIS, but not cited by Mr. Hale, shows that dollar-denominated deposits held by non-U.S. residents in banks in their own countries grew at almost an 18 percent annual rate over the three years in question.

The BIS data on cross-border holdings of deposits include those owned both by U.S. and by foreign residents, and thus represent a broader concept than that in our monetary aggregates. Narrowing it down to just those components included in M3, cross-border bank liabilities composed perhaps 5 percent of the broad money measure at the end of last year. Clearly, it would have taken an enormous shift in this small portion to have an appreciable effect on growth of the overall monetary aggregate. To be sure, there are other avenues through which the aggregates could have been affected. For example, U.S. residents might have shifted out of domestically held deposits into foreign-currency deposits held abroad. But for those wishing to adjust currency exposures, the use of options, futures, and forward contracts is probably much less costly than actually shifting the currency denomination and location of

deposits, many of which are held overseas for particular purposes.

Finally, there is little need to resort to currency substitution explanations for the pattern of growth in the broader monetary aggregates over the past several years either in the United States or elsewhere; domestic policies and macroeconomic developments can largely account for it.

It is true that the Federal Reserve has said that U.S. offices of depository institutions should not issue deposits denominated in foreign currencies (except at IBFs). This policy was first articulated in 1973 in a letter from Chairman Burns to the Bank of America, because it was felt that providing "greater scope for movements out of dollars into foreign currency assets could at times pose an increased threat to the international stability of the dollar." It was felt also that it would be inconsistent with the programs of restraint on capital outflows that were in force at that time. The policy has been reiterated subsequently.

Financial markets have become increasingly integrated internationally over the years. It has become relatively easy for U.S. residents to acquire any foreign currency exposure they desire. This means that issuance of foreign currency deposits in the United States would be likely to have a smaller and less destabilizing impact on the dollar's value than it would have

earlier, but the added benefits to the U.S. investor would be smaller, as well.

The competitive position of U.S. banks is not significantly affected by this policy. Neither foreign nor U.S. banks can issue foreign currency deposits in the United States.

Question 13: In response to a question from Senator Heinz, you stated that, "the spread between real interest rates will determine the spread between currencies or the exchange rate, not whether it's going up or down."

- o Is this position borne out empirically? Is the level of the dollar related to the real interest rate differential? What about the so-called interest parity conditions which relate the expected rate of change of the exchange rate to the interest rate differential between the two currencies? Has this relationship been reliable empirically?

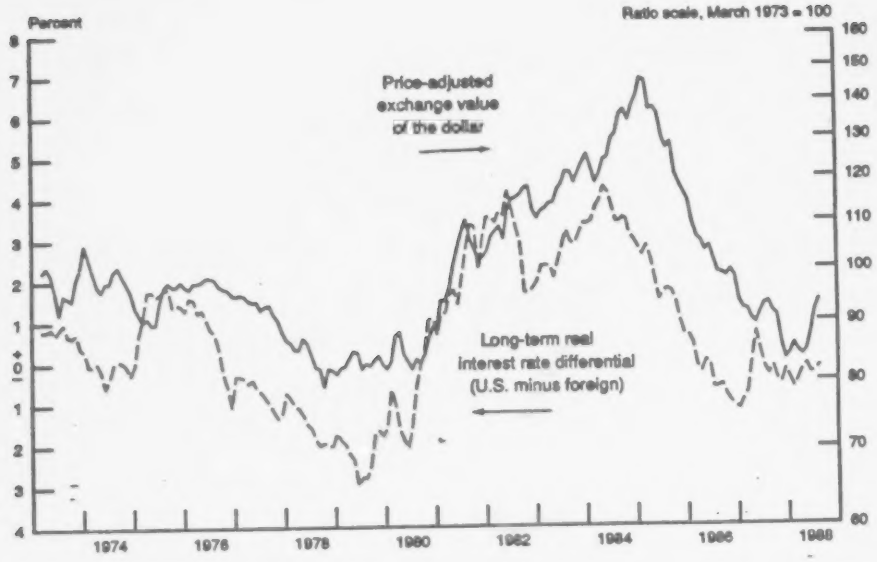
- o Are changes in the real interest rate differential correlated with changes in the exchange rate?

Answer: There is a fairly good, broad correlation between the level of the long-term real interest rate differential and the level of the real spot exchange value of the dollar over the floating rate period--see attached chart. (The relationship between contemporaneous changes in this differential and changes in the exchange rate is not so close.) However, both the interest differential and the exchange rate are determined simultaneously in a general equilibrium system, and both variables would typically react to any exogenous shock, such as a change in monetary policy or a change in market expectations about the long-run equilibrium exchange value of the dollar. An unanticipated tightening of monetary policy, for example, would normally tend to cause both the interest differential and the exchange rate to rise. An upward revision of the long-run expected equilibrium exchange rate would tend to raise the current spot value of the dollar but leave the interest differential unchanged or even lower it.

The uncovered interest parity hypothesis links the interest differential, which by arbitrage is equal to the forward exchange premium or discount, to the expected change in the future spot exchange rate. The forward premium has not, in general, been a good predictor of exchange rate movements--most of the movement in exchange rates appears to be unanticipated. Nor has the forward rate been an unbiased predictor over extended periods of time. The latter observations suggest that the hypothesis of uncovered interest parity does not strictly hold.

Attachment

Exchange Value of the Dollar and Interest Rate Differential



NOTE: The exchange value of the U.S. dollar is its weighted average exchange value against the currencies of other G-10 countries using 1972-76 total trade weights adjusted by relative consumer prices.

The differential is the rate on long-term U.S. government bonds minus the rate on comparable foreign securities, both adjusted for expected inflation by a 36-month centered moving average of actual CPI inflation or by staff forecasts where needed.

Question 14: In your testimony you state that "we have over the years endeavored to use the tax system in order to enhance savings to basically enhance the proportion of equity to debt in the system..."

- o What particular tax incentives have been offered to encourage equity issuance relative to debt issuance?
- o What further tax incentives do you believe should be created to promote equity issuance?

Answer: There have been a few changes in the tax code in recent years that, if not encouraging equity issuance, at least have reduced the incentives for debt finance. Perhaps the most obvious is the phasing out of consumer interest deductions. In many respects, however, the laws still provide substantial incentive to leverage, and the continuing massive increases in household and corporate indebtedness suggest that we should be looking for ways to bring greater balance to the financial decisionmaking process. I do not have a specific legislative agenda, and I recognize that any steps to address this problem must be taken in the broader context of the effort to achieve equity and efficiency in the tax code.

Question 15: In your testimony you suggested that the spread between the discount rate was within a range that has been covered by past historical experience.

- o For each year in the period from 1975 to the present would you please provide the Committee with the annual mean spread between the federal funds rate and the discount rate and the maximum spread between the monthly average federal funds rate and the monthly average discount rate within each year.

Answer:

Year	Mean Spread	Maximum (absolute) Spread
1975	-.43	-.90
1976	-.45	-.92
1977	.07	-.64
1978	.48	.70
1979	.91	1.99
1980	1.59	6.03
1981	2.96	6.08
1982	1.24	2.94
1983	.59	1.06
1984	1.43	2.64
1985	.41	.77
1986	.48	1.41
1987	.99	1.35
1988 (Jan.-Aug.)	1.11	1.75

Question 16: Several economists including Rudiger Dornbusch, Lawrence Summers, and James Tobin have suggested that this country should adopt a transfer tax on securities transactions.

- Which of the other industrial countries currently have such a tax? How large is the tax in each of these countries? How are the securities markets in each country affected? What happened to securities markets in each of these countries at the time that the tax was imposed? Have any countries discontinued the tax after trying it for a time?

- Does the Federal Reserve favor adopting a securities transfer tax in this country?

Answer: You have raised a complex set of questions for which I do not have the answers at present. It may be that other bodies that deal regularly with the subject of taxation would be able to provide the information that you are seeking with regard to the experience with transfer taxes in other countries. The Federal Reserve does not have a position on the policy issue. It is clear that theoreticians in the finance field have differing views on the merits of the transfer tax proposal, some believing that it would diminish short-run volatility, others believing that it would reduce liquidity and possibly enhance volatility and reduce equity values.

Question 17: In your testimony you suggest that currency holdings are $825 per man, woman and child living in the United States.

- o Has the Federal Reserve undertaken a study to ascertain the whereabouts of our currency? How much currency do you estimate is held overseas as a percent of the total? Is currency concentrated in any one of the Federal Reserve Districts to a greater extent than in the others?

Answer: No large-scale study is under way to determine where U.S. currency is being held; however, new approaches to obtaining better estimates of currency holdings are explored from time to time. A comprehensive study of currency holdings--even for amounts held in the United States--would be costly, and it is unlikely that hoarders of currency and those engaged in illegal activities would give accurate responses. Instead, judgments regarding the amounts of currency held domestically must be formed on the basis of infrequent surveys of consumer holdings of U.S. currency coupled with plausible assumptions regarding the amount of currency lost or stolen, business needs for currency, and the requirements of individuals engaged in illegal transactions. Unless these surveys and assumptions substantially understate the amounts of currency held by consumers, this approach suggests that in excess of half the total volume of currency outside of depository institutions may be held abroad.

Weekly data--from the Federal Reserve's H.4.1 statistical release--are available on the amount of Federal Reserve notes issued by each Federal Reserve district and still

outstanding. As might be expected, these data display considerable variation by district: New York leads with about one-third of the total volume of notes outstanding, while Minneapolis accounts for only about two percent. Some caution is appropriate in using these data to make judgments about the concentration of currency holdings, however, because currency issued in one district may routinely be carried or shipped across district lines or even across national boundaries.

Question 18: In your testimony you said that "high employment is consistent with steadily rising nominal wages and real wages growing in line with productivity gains."

- Would you please provide the Committee with data on the growth of real wages and the growth of productivity on an annual basis since 1975? Have real wages exceeded, kept pace with, or lagged behind productivity growth in recent years?

Answer: The data you requested are exhibited in the attached table.

The relation between increases in real compensation and productivity is highly variable in the short run. Apart from basic statistical noise associated with the difficulty in measuring these quantities, there can be significant variation in their relative movement because of cyclical and other short-run economic factors. Early in the current business expansion, for example, real compensation gains fell short of the percent increases in labor productivity because of a combination of labor market slack and the usual acceleration in productivity that occurs in the initial recovery phase of an upturn. More recently, productivity growth has somewhat outstripped gains in real compensation partly because of the effects of the depreciation of the dollar, which have shown through in larger increases in the expenditure-price measure conventionally used to deflate compensation than in the output-price measure used to deflate production.

Attachment

CHANGES IN PRODUCTIVITY AND REAL HOURLY COMPENSATION
NONFARM BUSINESS SECTOR
(four-quarter percent change)

Year	Productivity	Real Compensation
1975	3.4	.9
1976	1.8	3.3
1977	1.5	1.0
1978	1.1	.0
1979	-2.7	-2.6
1980	1.0	-1.5
1981	-.6	-1.2
1982	1.0	2.7
1983	3.6	.0
1984	1.5	.1
1985	1.5	.9
1986	1.2	2.9
1987	1.9	-.4

Question 19: Some analysts have suggested that the United States should seek external financing through the issuance of bonds denominated in foreign currencies--so-called Reagan bonds.

- The United States has issued foreign currency bonds in the 1960s, so-called Roosa bonds, and again in the 1970s, so-called Carter bonds. What was the purpose of each of these bond issues? In retrospect did each of these bond issuance initiatives prove to be beneficial to the United States?

- What are the advantages and disadvantages of issuing debt denominated in a foreign currency? Do you favor the U.S. government issuing foreign currency denominated bonds in the present context?

Answer: The Roosa bonds of the 1960s were sold to foreign central banks. Though denominated in foreign currency, the U.S. Treasury received the proceeds in dollars. The purpose of the bonds was to redeem dollar holdings which certain foreign central banks deemed "excessive" so as to forestall the conversion of these dollars into gold, which the United States freely provided under the rules of the Bretton Woods system. By reducing the exchange risk of the foreign central banks' asset portfolios, the notion was that these central banks would be more willing to undertake exchange market intervention to support the dollar. By transferring the exchange risk from foreign central banks to the United States the Roosa bonds were, in essence, a substitute for U.S. exchange market intervention, which was undertaken only minimally at that time. Whether or not the Roosa bonds were beneficial depends upon the counterfactual assumption. Certainly they proved more expensive than dollar bonds, since U.S. interest rates were lower than foreign

interest rates and some of the bonds were repaid only after the dollar devaluations of 1971 and 1973. But, to the extent that they substituted for U.S. gold sales, the market value of gold "saved" jumped to a great multiple of its value at the official gold price.

The Carter bonds were issued in 1978-80 to private market participants in Germany and Switzerland, with the proceeds received in marks and Swiss francs. Their purpose was to bolster the U.S. stock of foreign currencies available to support the dollar through U.S. exchange market intervention. Some of the proceeds were so used, some were not required. Those operations were, broadly speaking, profitable for the United States as the dollar subsequently appreciated.

Generally speaking, the only purpose of issuing foreign currency-denominated U.S. government bonds would be to finance intervention purchases of dollars. Unless the foreign currency proceeds were so used, the issuance of such bonds would have no effect on exchange markets or on the financing of the government deficit. But there are many alternative sources of financing U.S. exchange market intervention--including existing balances of foreign currencies, swap drawings, and sales of SDRs to foreign monetary authorities. To the extent that the proceeds of such bond issues were not, in the event, needed for intervention, we would end up borrowing long-term and investing short-term. Unless short-term foreign interest rates rose sufficiently during the holding period, we would lose money on the spread.

Question 20: In recent years real interest rates have been very high relative to historical averages. There have been many explanations for this including the federal budget deficit, financial deregulation, and fears of the prospect of another bout with inflation after the experience of the late 1970s.

- Would you please provide for the Committee data on the decade average ex-post real interest rate of one year maturity for each decade since the 1920s including an average for the period from 1980-1987?

- Presumably in a world of high international capital mobility the worldwide savings-investment balance would determine the real interest rate. In the 1980s have the reductions in foreign government dis-saving offset the dis-savings in the United States associated with the rise in our federal budget deficit as Olivier Blanchard and Lawrence Summers suggested in a paper presented to the Brookings Panel on Economic Activity in 1984? If so, why have real interest rates risen in worldwide in the 1980s? Does the key currency status of the dollar compromise the usefulness of analyses that utilize the global savings-investment balance framework?

Answer:

	Real Interest Rates	Nominal Interest Rates	Inflation
1920s	3.52	3.5	-.02
1930s	.35	.33	-.02
1940s	-5.13	.47	5.6
1950s	.11	2.21	2.1
1960s	1.74	4.54	2.8
1970s	-.80	7.00	7.8
1980-87	4.42	9.02	4.6

All figures are decade averages in percent per annum. Interest rate quotes used are as follows: 3- to 6-month Treasury notes and certificates in the 1920s; 3-month Treasury bills in the 1930s-1950s; and 1-year Treasury bill rates in the 1960s-1980s. Inflation is the year-to-year change in the CPI.

Making a crude comparison of the experience of the 1970s with that so far in the 1980s shows that the general government financial deficit in the OECD countries expanded from an average of 1.4 percent of aggregate GNP in the 1970s to 3.3 percent in 1980-87. Widening fiscal imbalances in both the United States and the group of other nations contributed about proportionately to the overall deterioration. While these figures cover a longer span of time than does the Blanchard and Summers paper and have not been similarly adjusted for cyclical and inflation influences, they nonetheless are suggestive of increased government dissaving in the 17 member countries on which the OECD provides data.

Certainly in the United States, the wider fiscal gap during the 1980s has produced a macroeconomic policy mix conducive to higher real interest rates. Ex-post real rates, while down from earlier in the decade, remain high, perhaps in part reflecting market participants' skepticism about the likelihood of a significant further reduction in U.S. government dissaving. Additional, substantial cuts in our federal deficit would undoubtedly prove constructive in paving the way for lower real interest rates.

It should be noted that measurement of real interest rates is problematical. The relevant real rates for analysis would be based on expected rates of inflation, not realized

movements in the price level. In this regard, expected inflation may have exceeded actual inflation through much of the 1980s, given the experience of the late 1970s, so that real rates were somewhat lower on an ex-ante than on an ex-post basis. In any case, relatively high ex-post real rates did not foreclose a sustained and vigorous economic expansion in recent years.

Analyses that utilize the global savings-investment balance framework can help to identify factors that are putting upward (or downward) pressures on interest rates in general and so can inform and guide policymakers in their efforts to support balanced, noninflationary growth, particularly as part of the policy coordination effort by the major industrial countries. In this process, the dollar's status as a key currency has at most a secondary role.

Chairman Greenspan subsequently submitted the following in response to written questions from Senator Riegle in connection with the hearing held on July 13, 1988:

Question 1: There are reports that international bankers are worried that the new capital rules announced by the Bank for International Settlements earlier this week will further hinder their competitiveness against other financial institutions, particularly investment banks and insurers. What is your reaction to this concern and how will the new capital rules affect our largest money center banks?

Answer: An important objective of the international risk-based capital standard, which the Board has now adopted, is to achieve greater convergence in the measurement and assessment of bank capital adequacy by government supervisors in major industrial countries. Thus, the new standard will help to promote competitive equality between U.S. banking organizations and those in other countries. As for the impact of the new standard on the competitive position of banking organizations vis-a-vis other financial institutions, it is generally the case that such institutions maintain capital positions in line with or exceeding those specified by the risk-based standards. Even if that were not the case, however, it would not be advisable to adjust the capital standards for banks down to the lowest common denominator. It should be stressed that it was the consensus view of major industrial countries that are parties to the international agreement that the standards are needed to help strengthen the soundness and stability of the international banking system.

Question 2: OPEC's surging oil production has resulted in lower energy prices and of course energy prices are an important indicator of inflation. What is your projection for energy prices throughout the remainder of this year and into the early 1990s?

Answer: OPEC has produced more crude oil during the past three months than most oil market analysts expected. Consequently, oil prices have declined further below OPEC's target of $18 per barrel for a select basket of crude oils.

Because of the large increase in non-OPEC oil production during the past decade, OPEC has a large surplus of crude oil production capacity. Consequently, some members of OPEC desire to produce more oil than is demanded by consumers at current prices. If this happens, oil prices would tend to rise more slowly than the general price level during the next few years. On the other hand, other OPEC members prefer that oil producers act cooperatively to restrict output in order to maintain somewhat higher oil prices. The resolution of these differing views depends essentially on political considerations.

Question 3: We will have to make serious decisions concerning the problems currently facing the S&L industry. Some of the proposals for providing funding to clean up the mess involve the Federal Reserve. For example, the Fed might pay interest on bank reserves, but pay it, for the first few years, to the FSLIC to enhance its resources. Alternatively, the Federal Reserve might be required to accept the notes currently being issued by the FSLIC as collateral for loans. What is your reaction to these two proposals? What role do you see the Fed playing in the S&L crisis?

Answer: Clearly, the FSLIC will need additional resources. The amount of these additional funds will become clearer as the FSLIC proceeds to address the problems facing it. Congress had indicated that it intends to address this question early in the new year.

As for whether the Federal Reserve should be called upon to provide funding to resolve thrift industry problems, I would point out that funding from the Federal Reserve would add to the federal budget deficit essentially in the same way as a budget expenditure. Moreover, in considering such an authorization one should take carefully into account that it would mark a sharp departure from the view traditionally held in our nation that the resources of the Federal Reserve (of the central bank with its monetary policy responsibilities) should not be used for special purposes and would set a dangerous precedent for the future.

Aside from the question whether the Federal Reserve should provide direct funding assistance to help resolve the thrift crisis, it can play a constructive role in other ways.

In the event the Federal Home Loan Banks are unable to meet the liquidity needs of troubled thrift institutions, the Federal Reserve Banks, in their capacity as lenders of last resort, stand ready to provide such institutions assistance at their discount windows. In addition, the Federal Reserve is prepared to work with the FSLIC and the Congress in evaluating possible ways in which additional resources might be marshalled to deal with the problems in the thrift industry, in considering arrangements that might be established to promote the long-run health of the thrift industry, and in promoting harmony between the supervisory framework to which thrift institutions and commercial banks are subject.

Chairman Greenspan subsequently submitted the following in response to written questions from Senator Sasser in connection with the hearing held on July 13, 1988:

Question 1: At the panel hearing on July 12, Dr. Ray Fair suggested that one percentage point change in 3-month Treasury bill interest rates, holding GNP growth constant, would change the federal budget deficit by $5.6 billion in the first year and $13.7 billion in the second year. The Congressional Budget Office estimates that a one percentage point increase in the interest rate beginning in January 1988, for all maturities, would produce an increase in the deficit of $3 billion in fiscal 1988 (FY88), $11 billion in FY89, $16 billion in FY90, $21 billion in FY91, $26 billion in FY92, and $30 billion in FY93. None of these estimates add in the effects of higher interest rates depressing economic growth and thereby reducing revenues and increasing automatic outlays. In addition, cost of living adjustments in budget items may increase if they are based on the consumer price index because a rise in interest costs pushes up that index.

- What does the Federal Reserve's analysis estimate the dollar impact of a permanent one percentage point increase in interest rates of all maturities to be on each of the following over a six year period:

  A. Debt service on the national debt
  B. Economic growth
  C. Tax revenues
  D. Federal government spending
  E. The consumer price index
  F. The federal budget deficit

Answer: It is understandable that the OMB and CBO prefer to give the "partial" estimates of interest rate effects, because it really is not practical to do multi-year "general equilibrium" simulations of the sort you are seeking without specifying in very particular ways a great many assumptions about policy and other variables that would significantly influence the results. Moreover, six years is a rather long span of time, and the econometric models constructed by the staff of the Board are not well designed to capture the "supply-side" and other effects that could become important over such an extended period.

Question 2: Japanese Bank Lending to Soviets. I have had occasion to explore as a part of my work on the Defense Appropriations Subcommittee the issue of burden sharing, particularly with regard to the Japanese.

In this Committee, we have the omnipresent concern about the Third World debt crisis, and its impact on our major financial institutions, and the issue of export policy. We need to open markets overseas. It seems to me that the issues are increasingly related and alarmingly so.

We have the Latin American countries scraping the bottom of the barrel to find the foreign exchange to service their debt. The last thing they can afford to do is to buy our exports, so our industries and workers here suffer to some extent.

We had hoped that the Japanese would step in and increase assistance to the Latin American countries to get their economies moving again. Obviously, we would like to see an increase in lending that would relieve the pressure on our banks and open up some opportunities for our exporters.

Well, the Japanese have increased their assistance in Latin America to some degree. But what we see are loans tied directly to purchases of Japanese exports. Obviously this is no help to us.

Most alarmingly, at the same time, the Japanese banks have dramatically increased their lending to the Soviet Bloc and these loans are untied. They're a line of credit to be spent on whatever the Soviets want. It sounds to me like a mockery of the concept of burden sharing.

I have to admit that I am surprised at how little information is available about Japanese bank lending to the Soviets. But I strongly feel that it's an issue that this Committee and the Fed should examine closely soon. Do you have any information on this lending?

Answer: Data reported by the Bank for International Settlements (BIS) on total international bank lending to the Soviet Bloc show a $14 billion decline in gross claims for the 1980-1984 period, followed by a $37 billion increase over the subsequent three years. This pattern of bank lending to the

Soviet Bloc reflects in part the effect of the decline in the dollar on the dollar value of loans denominated in other currencies, which constitute a significant part of bank lending to the Soviet Bloc. After adjusting for exchange rate changes, there appears to have been only a modest increase in bank lending to the Soviet Bloc in the late 1980s and, conversely, no abrupt decline in such lending in the early 1980s.

Furthermore, data for U.S. banks indicate that their involvement in lending to the Soviet Bloc has fallen throughout the 1980s both in terms of dollar amounts and as a proportion of total reported bank lending. Unfortunately, country-by-country creditor data for most other BIS reporting countries' banks, including those of Japan, are not available. Overall, the Soviet Union's continued ability to borrow from banks appears to be accounted for by its pursuit of conservative external financial policies.

Generally speaking, Soviet Bloc borrowing from banks has apparently been largely untied, although anecdotal reports suggest that recently the proportion of tied bank credits appears to have increased. We do not have data on Japanese bank loans to the Soviet Bloc that would enable us to say how much is untied or whether Japanese loans have been more or less tied than those of banks from other creditor countries. On the other hand, we do know there has been a strong increase in Japanese

official lending to Latin America. This lending, usually conducted in support of concerted lending by the international financial institutions and the commercial banks, has been untied. We cannot make a comparison of Japanese bank lending terms to Soviet Bloc and Latin American borrowers.

Question 3. S&L Crisis. As you probably know, the Federal Home Loan Bank Board is now reporting that the cost of resolving all of the problems of the insolvent thrifts is $10 billion more than they told us just last month. That puts their estimate up to around $30 or $40 billion. However, some experts are saying the cost could be around $65 billion. And I think the best estimates of income to the FSLIC over the next few years is around $20 billion. So we will have a shortfall.

We now have talk of a taxpayer bailout and a merger of the FDIC and FSLIC funds. Neither of these are solutions--nor are they acceptable. Indeed, they are in effect the same thing. Outlays by the FDIC are counted as expenditures in the budget process, so merging the funds would only worsen the deficit, and increase pressure for revenues from taxpayers.

What are your recommendations as to how we should proceed? How do we pay for this mess? What's a realistic expectation for a contribution from the thrift industry towards reconciling the problem of the insolvent savings and loans? With the special assessment that they're paying now, are they already paying too much?

Answer: It is important to emphasize the great uncertainty that surrounds estimates of the potential losses facing the FSLIC. The extent of such losses will depend in large part upon the market value of the real estate properties that secure the mortgage loans of troubled institutions. And, given the huge amount of property involved, relatively small changes in market value can have a major impact on the magnitude of thrift industry losses. Taking that point into account and that real estate markets are highly unsettled in areas where troubled institutions have made the bulk of their loans, it should be obvious that judgments as to potential losses must be subject to considerable error.

But, while there is reason to be cautious in viewing estimates of potential loss, it is clear that the FSLIC is facing large problems which are going to be with us for some time to come. The Congress has indicated that it will be addressing the important questions that you have raised concerning the extent to which healthy thrift institutions should be required to bear the brunt of the industry's losses early in the new session. The Federal Reserve will, of course, be happy to provide whatever expertise it can when the Congress takes up this issue.

Question 4: LBO Debt as a Future Problem for Banks. As you well know, banks have dramatically increased their lending for so-called leveraged buyouts over the past few years. Exchanging debt for equity has become the rage. Some $400 billion in new debt has been added in the last two years.

This has helped push debt-to-equity ratios of corporations to unprecedented levels, raising a good deal of concern that this level of debt could cause big problems for companies when the next recession hits.

Obviously if companies are going to have problems servicing this debt, the banks that hold it are going to be in trouble too. Indeed, the magazine, The Economist, has called LBO debt the next Third World debt crisis for banks.

What do you think about this trend? Should the Fed be monitoring this more closely? What steps would you recommend?

Answer: The Federal Reserve has been monitoring the LBO and corporate leveraging trends for some time now, and both I and my predecessor as Chairman have noted our concerns about the risks that these developments might carry for lenders and the economy more broadly. The Federal Reserve, in its supervisory capacity, has looked closely at the lending activities of individual banking institutions and has cautioned banks more generally that they should make certain that they examine the prospects for LBO loans under a range of economic and financial circumstances.

The issue of increasing leverage is one that should be viewed from a broader perspective than its possible implications for credit quality in the banking sector. We do not yet fully understand why there has been such a large increase in the use of debt finance in the current decade, but I think it is widely recognized that the tax system provides some incentives toward leverage, and it would be appropriate for the Congress to continue looking at that problem.

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Risks in the dollar's rise

THE MOTTO of the Reagan administration in its last half year seems to be *après nous le déluge*. There has been little doubt that the aftermath of President Reagan would prove difficult, but what is happening at the moment will make it still more difficult than expected. Mr James Baker, the US Treasury Secretary, seems to have decided that there is enough adjustment of the US external account in the pipeline to get the US through to the election. The priority has shifted to the suppression of inflation.

The result is the export of inflation to the rest of the world. Both this week and last, Germany has demonstrated resistance. The spotlight now turns to Japan. What price in terms of domestic inflation is the Japanese government prepared to pay to help secure the election for Mr George Bush?

The origin of the current problem is, paradoxically, success in stabilising the dollar. Being less worried about the exchange rate in the medium term, the markets started to look at interest rates. With the economy showing much greater robustness than generally expected at the beginning of the year, the dominant concern of the US authorities had become inflation. As a result, there was an upward drift in short term dollar interest rates. Meanwhile, short term rates of interest changed relatively little in Germany or Japan, at least before the middle of June.

With a larger interest rate differential in favour of the US and the perception of little downside risk in the short term, money has poured into the dollar. A modest amount of central bank intervention, almost entirely in Europe, has failed to reverse the tide.

US outlook

The dollar is now some 10 per cent above its trough against the yen and no less than 15 per cent above its low against the D-Mark, which is now where it was before October 19 1987. The dollar's nominal effective exchange rate against the currencies of the industrial countries has appreciated five per cent in under three months and now stands only 4 per cent below the pre-crash level.

For the US authorities this looks quite delightful. It is unlikely that the change in the exchange rate will have an adverse effect on the balance of payments position over the remainder of this year. In fact, the higher exchange rate is more likely to improve than worsen nominal deficits in the short term. Meanwhile, the combination of a fairly tight monetary policy and an appreciating exchange rate will put downward pressure on inflation, otherwise a considerable risk in the buoyant US economy.

For the rest of the world things look decidedly less attractive, since commodity prices will rise in domestic currencies. With extremely rapid growth in Japan and even Germany performing rather better than anticipated, fear of inflation is inevitable, a fear exacerbated by the loose monetary conditions in both countries.

Appreciation

In line with its traditional concerns the Bundesbank has acted first, though in so doing it is really just following the market. The UK has been only too glad to lead the upward charge. The Japanese have, however, managed to avoid an upward movement in short term interest rates, at least so far.

With the US unwilling to lower its own interest rates, and other countries unwilling to raise theirs very much, a marked appreciation of the dollar has been virtually inevitable. The change in the dollar and in interest rates during June remains somewhat inflationary for the rest of the world and somewhat disinflationary for the US, but the real danger is an increase in the US external deficit in the medium term.

The world's leaders are likely to wake up in 1989 with a still greater headache than expected a month ago. The headache is already much greater than generally realised. The US trade balance has been improving, it is true, but the same has not been true of the current account, largely because of increased debt service. In the first quarter of 1988 the US current account was in deficit to the tune of $40bn, up from $34bn in the last quarter of 1987, despite a $5bn improvement in the balance on merchandise trade.

The US authorities carry much of the blame for the increased risk in the medium term, because of their unwillingness to carry out active intervention against the dollar. The danger has, however, been inherent in the present informal approach to exchange rate management. If there were clear rules for depreciation of exchange rates in line with the interest rate differentials that governments want for domestic reasons, these counter-productive lurches in exchange rates could be avoided. Unfortunately, governments desire the greatest possible discretion. If they are unwilling to propose and implement a system with better articulated and more sensible rules for intervention, perhaps they deserve the deluge.